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ABSTRACT

The purpose of this investigation was to construct an Organizational Climate Description Questionnaire-Higher Education that would permit portrayal of the organizational climate of academic departments within colleges and universities. Data collected from the completion of pilot and research instruments was obtained from the faculty members in 72 academic departments in 12 Pacific Northwest institutions. A principal component factor analysis identifies 6 domains that pervaded the organizational climate of the academic departments sampled. Factor analysis of the subtest scores for the 6 domains allowed for a 3-factor solution to be accepted for the analysis at the departmental level. To analyze the departments' climates, double standardized subtest scores were calculated. The scores of selected departments within each group were used to describe the organizational climates that provided models for the identified climate. The findings of this investigation were that: (1) the OCDQ-HE is a valid instrument to assess the organizational climate of academic departments; and (2) the consolidation in this investigation in higher education of the same factors found in the original study was shown. (Author/HS)

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An Abstract of the Dissertation of

Berge Andrew Borrevik, Jr. for the degree of Doctor of Philosophy
in the School of Health, Physical Education and Recreation
to be taken September 1972

Title: The Construction of an Organizational Climate Description
Questionnaire for Academic Departments in
Colleges and Universities

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(Arthur A. Esslinger)

The purpose of this investigation was to construct an Organizational Climate Description Questionnaire-Higher Education that will permit portrayal of the organizational climate of academic departments within colleges and universities. This investigation was modeled after Halpin and Croft's study of elementary school climate.

Data collected from the completion of pilot and research instruments was obtained from the faculty members in 72 academic departments in twelve Pacific Northwest institutions. A principle component factor analysis identified six domains which pervaded the organizational climate of the academic departments sampled. Validation of the instrument was accomplished through use of construct validity, and cross-validational techniques. Factor analysis of the subtest scores for the six domains allowed for a three-factor solution to be accepted for the analysis at the department level. To analyze the departments' climates double standardized subtest scores were calculated. The mean profile

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of scores of selected departments within each group was used to describe the organizational climates which provided models for the identified climate.

The findings of this investigation were that: (1) The OCDQ-HE is a valid instrument to assess the organizational climate of academic departments. (2) The consolidation in this investigation in higher education of the same factors found in the original study was shown.

THE CONSTRUCTION OF AN
ORGANIZATIONAL CLIMATE DESCRIPTION QUESTIONNAIRE
FOR ACADEMIC DEPARTMENTS IN COLLEGES AND UNIVERSITIES

by

BERGE A. BORREVIK, JR.

A DISSERTATION

Presented to the School of Health, Physical Education,
and Recreation
and the Graduate School of the University of Oregon
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DEDICATION

To my wife, Julie, daughter, Ann,
and sons, Andrew and Jeffrey.

TABLE OF CONTENTS

Chapter		Page
	LIST OF TABLES	ix
	LIST OF FIGURES	x
I	INTRODUCTION	1
	Statement of the Problem	2
	Need for the Study	4
II	REVIEW OF RELATED LITERATURE	8
	Organizational Climate	8
	Halpin and Croft's Investigation	21
III	RESEARCH PROCEDURES	30
	Selection of Samples	30
	Collection of Data	32
	Method of Attacking the Problem	35
	Summary	44
IV	ANALYSIS OF DATA	45
	Pilot Investigation	45
	Main Investigation	47
	Summary	83
V	SUMMARY AND CONCLUSIONS	86
	Statement of the Problem	86
	Organizational Climate	86
	Procedures	87
	Results	89
	Conclusions and Implications	92
	Suggestions for Further Study	94
	APPENDICES	96
	BIBLIOGRAPHY	141

LIST OF TABLES

Table		Page
I	OCDQ-HE, Form I, Items That Compose Six Subtests	51
II	Rotated Item Factor Matrix for the 80 Items of the OCDQ-HE Research Form (N = 575)	55
III	Comparison of Two Item Factor Matrices of Randomly Selected Halves of Respondents for the 50 Included Items of the OCDQ-HE Research Form (N = 575)	61
IV	Correlations Between Six Subtest Scores OCDQ-HE Research Form, 50 Items (N = 575)	65
V	Unrotated Factor Matrix for Six Subtests, Research Form, 50 Items (N = 575)	66
VI	Three-Factor Varimax Rotational Solution for Total Faculty Sample (N = 575)	67
VII	Estimates of Internal Consistency and of Equivalence for the Six OCDQ Subtests	72
VIII	Identified Prototypic Sample Department Profiles for Six Organizational Climates Ranked with Respect to Factor I	74
IX	The Sample of 47 Department Profiles Grouped in Respect to Factor Loading	78
X	Subtest Scores and Factor Loadings for Each "Ideal" Climate	82

LIST OF FIGURES

Figure Page

I Tentative 16 Dimensions of which the 160 Items of the OCDQ (Form II) Were Assigned, Grouped According to the Relevant "Source of Interaction" 26

CHAPTER I

INTRODUCTION

> A major paradox of the twentieth century is this: while organizations are becoming ever more important as a way of meeting human needs, they are also becoming less manageable.
>
> Bertram M. Gross[1]

The academic department has emerged as the dominant element in the structure of the contemporary university. The expansion of professionalism and academic specialization, the growth of research and scholarship, and the knowledge explosion have all provided the impetus for the growth of the academic department. Constellations of power within the university are centered in it.

> As a result, the department has become the critically important operating unit in many, if not most, colleges and universities. In matters of governance, the ability to influence the course of events in the academy is lodged primarily at the departmental level, for it is the department in which goals are set, means are determined, standards are applied, and rewards are dispensed.[2]

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[1] Bertram M. Gross, Organizations and Their Managing (New York: The Free Press, 1964), p. vii.

[2] Stanley O. Ikenberry, "Restructuring the Governance of Higher Education," AAUP Bulletin, 56 (December, 1970), p. 373.

Statement of the Problem

As important as departments in institutions of higher education have become comparatively little research has been conducted in regard to them. Many aspects of organizational operation could be investigated. One of the most important of these dimensions is the human element. It is apparent that the nature and effectiveness of academic departments depends greatly upon the human relations involved.

In the past decade the concept of organizational climate has been developed to assess some of the human variables involved in academic departments. Halpin and Croft have developed an instrument to measure the organizational climate of elementary schools.[2a] There is great need for a similar instrument at higher educational level. Therefore, this investigation is an attempt to develop an instrument that will assess the organizational climate that surrounds academic departments in colleges and universities.

Hypotheses

The following research hypotheses were investigated in an attempt to validate the Questionnaire.

(1) The Organizational Climate Description Questionnaire--Higher Education will be a valid instrument to assess the organizational climate of academic departments.

(2) The subtests of the instrument will consolidate around the same dimensions found in the original investigation, but the factor loadings on the various dimensions will be different.

[2a] Andrew W. Halpin and Don B. Croft, The Organizational Climate of Schools (Midwest Administrative Center, The University of Chicago, 1963), p. 4.

Assumptions

Several assumptions were made in order to guide this investigator in his development of the Questionnaire.

(1) A "desirable" organizational climate is one in which it is possible for leadership acts to emerge easily.

(2) If an organization is to accomplish its tasks, leadership acts must be initiated.

(3) An effective group must provide satisfaction to group members in two major respects: (a) it must give a sense of accomplishment, and (b) it must provide members with the social satisfaction that comes from being part of the group.

(4) Climate evaluation must include both measurement of leadership behavior and specific behaviors among the group members.

(5) The original questionnaire items are not applicable to academic departments in institutions of higher education.

(6) A random sample of academic departments will include a broad variety of organizational climates.

Limitations

This investigation was limited in the following respects:

(1) Time constraints did not allow adequate time: (a) to validate the questionnaire against the external criterion of departmental effectiveness, and (b) to assure optimum levels of internal consistency among the subtests.

(2) The original theoretical description of the organizational climate paradigm developed by Halpin and Croft[2b] was used for this investigation.

(3) Faculty member perceptions vary not only according to the leadership behavior, but also because of undefined factors within the perceiver.

(4) The random sample of academic departments was limited to academic departments within selected four-year colleges and universities in the states of Idaho, Oregon and Washington.

(5) An eight-week period was imposed for the collection of data, restricting the number of respondents.

Need for the Study

Investigators into the nature of organizations have found them difficult to describe and evaluate.

Theorists that have attempted to define organizational dimensions and the need for instruments to evaluate those dimensions are discussed in the following sections.

Over the past seventy years, three distinct theories of organizations have evolved. These are: (a) the machine theory era, (b) the human relations approach, and (c) the era of the revisionists.

Machine theory is a term that encompasses three classical models of traditional theory: (a) the scientific management approach of Taylor (1923), (b) the public administration account of Gulick (1937), and (c) the sociological description of bureaucratic structure of Weber (1947). Each gave primary attention to the character of their internal structures. The machine theory implies that the organization, though consisting of people, is viewed in a mechanistic way and may be dealt with by using techniques designed to control machines.[3]

[2b] *Ibid.*, pp. 16-17.

In the years immediately preceding World War II, a second group of theories began to be developed which included both the process and human aspects of administration. The formulation of the human relations model was the result of writings of Fritz Roethlisberger and W. J. Dickson in Management and the Worker, published in the 1930s. The emphasis in organizational theory changed from a rational model, uninvolved with man as a thinking human being, to a model which appears to be less determined, and hence more unfathomable.[4]

Since 1950, several authors have attempted to reconcile and integrate the classical and modern theories of organization. These theorists are referred to as the "revisionists." "They share a common concern for revising the native, unsubstantiated, and unrealistic aspects of the human relations approach without sacrificing its radical departure from traditional theory."[5] The revisionists are concerned with external economic factors, with productivity, formal status, and the neglected human elements of traditional theory.

Because of the lack of adequate tools for measurement, few attempts have been initiated to investigate organizations from such theoretical positions. One problem in the development of such instruments is illustrated by a series of leader-behavior studies in which Halpin found that leaders and subordinates developed different perceptions of the contribution of leader-behavior dimensions to the effectiveness of leadership.[6] Furthermore, the lack of clearly defined dimensions of organizational climate[7] places constraints upon the inferences that can be drawn from investigations of organizations.

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[3] Daniel Katz and Robert L, Kahn, The Social Psychology of Organizations (New York: John Wiley & Sons, Inc., 1966), p. 71.

[4] Warren G. Bennis, Changing Organizations (New York: McGraw-Hill Book Company, 1966), pp. 67-68.

[5] Ibid., pp. 69-71.

An investigation designed to study school environment was initiated in the early 1960s by Andrew Halpin and Don Croft. Under an Office of Education, Department of Health, Education, and Welfare grant, they studied the organizational climate of elementary schools, developed the Organizational Climate Description Questionnaire (OCDQ), conceptualized six types of organizational climates and identified three profile-factors. The catalyst for the investigation came from the common, though obvious, observation that schools vary considerably in their organizational climates. The investigation's task was: "To map the domain, to identify and describe its dimensions, and to measure them in a dependable way which will minimize those limitations that inhere in every instrument which must, in the final instance, rely upon subjective judgement."[8]

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[6] Andrew W. Halpin and Don B. Croft, Theory and Research in Administration (Toronto: The MacMillan Company, 1966), p. 70.

[7] See Chapter II.

[8] Andrew W. Halpin and Don B. Croft, The Organizational Climate of Schools (Midwest Administration Center, The University of Chicago, 1963), p. 4.

The development of analytical instruments such as the Organizational Climate Description Questionnaire (OCDQ) to be used in the investigation of the nature and effectiveness of academic departments is overdue. From a review of the aforementioned studies by Halpin and associates, it is apparent that (1) little research has been completed on organizational climate of academic departments, and (2) an Organizational Climate Description Questionnaire applicable to the investigation of the nature of academic departments in colleges and universities needs to be developed. This investigation appropriately is designed after the research which validated the original instrument.

CHAPTER II

REVIEW OF RELATED LITERATURE

Organizational climate is a concept which is new to administrative research. Reference to the influence of environmental variables is seldom found in the literature prior to the 1950s.

In order to understand the concept of organizational climate, its definition, dimensions, and its uses in research are given in this chapter. The latter part of the chapter is devoted to a detailed analysis of the Halpin and Croft investigation upon which this investigation is based.

Organizational Climate

The emergence of theories of organizational behavior permits the use of the concept of climate. It provides new and profitable ways of considering theories of organizational behavior.

Litwin,[1] in his paper, "Climate and Behavioral Theory," explains individual and organizational behavior. The first part of the paper discusses some of the major groups of psychological theories of individual behavior, among which are psychoanalytic theories, stimulus-response theories, and expectancy-value theories.

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[1] Renato Tagiuri and George H. Litwin (editors), Organizational Climate, Explorations of a Concept (Boston: Harvard University, 1968), pp. 35-61.

Psychoanalytic theory involves the relationship of the development of personality and the childhood maturation of the human being. The psychological aspects of the developmental process are closely related in the environment. This has been expressed in studies which define the ego's function in relation to that environment. A stable and viable personality is seen in direct relationship to ego development. It, therefore, can be stressed that there is an important person-environment relationship. Psychoanalytic theory has influenced the development of research in disciplines that are very much concerned with the ecological and environmental variables.

The molar approach of stimulus-response theories tends to place environmental influences in a diminished role. They tend to deliberately exclude the influence of the total environment or of environmental qualities as primary determinants of behavior.

The expectancy-value theory gives great importance to such variables as environmental determinants of behavior. Tolman[2] creates a psychology of purposive behavior. He includes in its central characteristics that: (1) behavior is purposive, that is, the organism is always moving towards a goal or away from a disturbing object in his environment; (2) and the organism possesses knowledge of or has a cognitive map of its environment. The analysis and measurement of expectations and incentive value create problems for the expectancy-value theory. These variables do not characterize the environment in a significant way.

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[2] Tolman, E. C., "A Behavioristic Theory of Idea," Psychological Review, 33 (1926), p. 358.

Included in this paper are two theories of organizational determinants of behavior, the Lewinian field theory and the probabilistic-functionalism of Egan Brunswik. The fundamental part of the Lewinian concept is that of lifespace. It refers to the behavior of an individual at a certain moment that is determined by the totality of facts. This concept includes the person and his environment as one. A dynamic feature of lifespace is what Lewin calls force. The strength of a force is determined by the sum of the attractive or repulsive qualities of the element of the environment, and by the psychological distance between the person and those elements. Brunswik deals logically with the problem of the relationship between the external or physical and the internal or subjective environment. He relates the variables in this theory in terms of their status. They include stimulus, response, and their relationships to the organism. Lewin and Brunswik construct theories of individual behavior which give major attention to the influence of environmental quality or climate on behavior, which has given major impetus to the integration of theories on individual behavior with environment or climate.

Litwin's second section deals with the central problem of relating theories of organizational behavior to the environment. The understanding of the individual in small-group behavior appears to be central to the development of theories of climate. Included are discussions of organizational climate as it relates to theories of classical management, structural organization, social structure, and decisions-system. Each of these is discussed below.

In one category, Taylor, Fayol, and Gulick and Urwick are considered the leading exponents of classical management theories. Their efforts primarily concerned the subdivision of work, and the differentiation of responsibility and authority. These classical theories seem to neglect the importance of human environment or the climate, largely because they ignore the determinants of variability in human behavior. When these theories are viewed in historical perspective, it appears that these writers were not able to comprehend the importance of the human in the organization. Therefore, it is unlikely that climate concepts could have been integrated into the classical type of organizational theory.

Structural-organization theories are a second category. These are concerned with the interrelationship of structural, technical, and external climate factors. Investigators attempt to account for characteristics in explaining the interrelationships of the various sub-units which composed the organization or analytical variables. Organizational structure, technical attributes of the work of the organization, and the design of individual and group tasks are viewed by the structural theorists as important determinants of satisfaction, morale, and productivity of people, and of organizational effectiveness and development. The emphasis of objective features of organizational structure, administrative practices, and their effect on job characteristics in the structural approach differs substantially from emphasis in the environmental concept; there, the emphasis is upon the total subjective effect of the environment on people.

Theoretically, social structure, a third category, is not considered to be separate from internal organizational systems. The characteristics of the social structure, particularly those requiring analysis of subjective data, led to what might be called a micro-analysis of individual and group behavior inside the organization; these characteristics were more difficult to define in ways that are not specific to the organization. Since the internal-system concept and the concept of organizational climate are related to each other, the integration of climate concept into structural theories is certainly feasible.

The basis of the decisions-system theory, a fourth category, is that rational decisions are the primary goal of organizations. In the rational-decision process, emphasis is given to the analysis of individual psychological factors, group structures, and to norms and influences of administrative behavior. Since the various characteristics of organizational climate are compatible with the analysis of decision-making processes, the inclusion of climate concepts is possible when relevant and pertinent to the decision-making theory.

The greatest contribution of organizational climate as a concept seems to be in the theories which are related to the social system which emphasizes the importance of the immediate, informal work group in determining individual motivation and organizational performance. The social-system theories are built on some of the following considerations: (a) social-circumstances influence is more related to variations in productivity than is physical capacity; (b) economic rewards are not necessarily important; (c) formally designated leaders are often less influential than informal leaders; (d) the effective supervisor is more likely to be employee-centered than job-centered. Effective individual behavior and the processes of group interaction are emphasized in this set of theories. It appears that there will be an increasing role for environmental concepts in the social-system theories as investigators direct their concerns toward studies of more complex organizations and of total system functions. Litwin concludes by saying that theories of individual behavior have not, by and large, attached much importance to the analysis of the environmental quality of climate. The integration and utilization of climate concepts in theories of organizational behavior, on the other hand, have provided the impetus for the specific study of organizational climate and extended its range of application.

The term climate is discussed in "The Concept of Organizational Climate: by Tagiuri."[3] This paper states that there is lack of agreement on a definition of climate but suggests that the work refers to some features of characteristics of the environment and its consequences for the behavior of an individual or of a group, and to which the individual is somehow sensitive. This author suggests that it appears that if everything else is held constant, climate and behavior converge. Tagiuri proposes that for purposes of accounting for behavior of individuals or of groups, climate may be used as a concept which stands between the broadest concept of environment on the one hand, and, on the other, more specific concepts such as behavioral setting, situation, and conditions. Climate is a less general, narrower concept than environment. Here, then, climate is expressed in an analytic and descriptive term. For purposes of practical application, Tagiuri defines his concept of the term as follows:

---

[3] Ibid., pp. 11-32.

> The climate of an organizational setting is defined as a relatively enduring quality of the internal environment of the organization, that is (a) experienced by its members, (b) influences their behavior, and (c) can be described in terms of the values of a particular set of characteristics (or attitudes) of the organization.[4]

The dimensions of organizational climate are extremely difficult to pin down. It is not easy to identify measures of climate that are not descriptive of particular organizations. Garlie Forehand[5] suggests that climate is identifiable in the interactions of the environment and personal variables. It is suggested that a profitable strategy would be the independent measurement of variations within the environment, and of participants and the analyses of their joint outcomes. It is assumed that an individual's personal characteristics predispose him to perform a task in a given way, given an appropriate environment. This examination found that one central dimension of organizational climate is undeniable: the postulate that behavior is influenced by properties of the environment in which it occurs. As a result, the concept of organizational climate has important heuristic value. It is suggested that the concept underlying a climate study should be about the interaction of personal variables and environmental variables, and should consider environmental variables in terms of the degree to which they demand or constrain the operation of personal characteristics.

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[4] Ibid., p. 27.

[5] Ibid., pp. 65-82.

Cattell[6] offers another way of identifying the various factors in climate when he discusses the concept of group syntality. He defines syntality as that which permits the psychologist to predict what the group as a whole will do when a stimulus situation has been defined.

The factorization of group performances, and the showing of functional unity and psychological meaning will provide an indication of the dimensions of syntality. Various feedback systems result through the causal interaction among variables which are complex and reciprocal. Cattell describes group synergy as that which can be equated definitionally to an individual's personality. He indicates that effective synergy is that part of group energy that provides the force used by the group as it moves towards its goal while the maintenance energy is the residual total synergy, which is used up in internal friction of the group machinery, that is, in maintaining the group's internal activities. Intrinsic synergy is that which is stimulated by the very existence of the group and is mainly the satisfaction of gregarious needs; active synergy is the interest that arises in members through the further special activities which the group pursues, and which is generally connected with the world outside the group. The individual who produces a group syntality different from that which would exist had he not been present in the group is defined as the leader.

Effective leadership is measured in the magnitude of change which the individual produces. In these terms, each individual within the group has leadership effectiveness, and this effectiveness is relative to the magnitude of change which he alone can cause.

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[6] Raymond B. Cattell, "New Concept for Measuring Leadership in Terms of Group Syntality," Human Relations (1951), pp. 161-183.

Sells[7] presents a view of organizational climate as it relates to organizational behavior. He thinks that behavior provides an understanding of the nature of organizational climate and at the same time facilitates a distinction between climate and other variables. He states that organizational climate appears to be a function of cultural patterns of organization and includes those generalized organizations of members which are (a) shared by the majority of the members of the organizational unit, and (b) acquired in relation to factors specific to the organizational situation. A further distinction is made between behaviors dependent upon factors unique to the particular organization and those reflecting influences that are part of the total physical and social environment which is shared by all human beings.

Behavior of living organisms is adaptable. A physiological acclimitization of individuals to environmental conditions leads to effective functioning in society. The important feature in this is feedback which enables the individual to adjust his goal-directed responses in response to information about the results of his previous action. This is a characteristic of the group process as well, and has implications in group formation, entry and departure in relation to individual member roles, status, communication patterns, and norms which serve adaptive functions in relation to individual and group goals. Sells then sees a social system in terms of various behaviors.

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[7] Tagiuri and Litwin, _op. cit._, pp. 85-103.

In an article which studies organization in a bank, Argyris[8] uses a simplistic model to study interpersonal relationships. The model consists of an input dimension, output dimension, and a feedback to input. It is constructed to reflect the primary structural properties of the social organization with human beings in the role of the original inputs.

This study depicts the climate of an organization as being composed of elements representing many different levels of analysis; the resultants of the interaction of the host of multi-level variables may be viewed in a significant pattern which is arrived at through these many different levels of analysis. The significant pattern reached with this different-level analysis is that of organizational behavior.

One of the first attempts to measure climate is described by Hemphill[9] in an article published in 1950. His purpose was the objective description of group characteristics. Skills were developed to describe the relationship between the behavior of leaders and the characteristics of groups in which they function. This study was developed as part of a ten-year research program on leadership conducted as part of the Ohio State Leadership Studies. This investigation was predicated on the following definition of a social group: "A unit consisting of a plural number of separate organisms (agents) who have collective perceptions of their unity and who have the ability and tendency to act/or are acting in a unitary manner toward their environment." To identify characteristics which would provide the boundaries of the social group, four criteria were used as guides: (a) each characteristic should have significance in a sociological or psychological framework; (b) each characteristic should be conceived as a continuum varying from the lowest degree to the highest degree; (c) each characteristic should refer to a molar rather than a molecular property of the group; (d) each characteristic should be relatively orthagonal or independent of all the other characteristics in the descriptive system. Hemphill's thirteen characteristics that appear to meet the criteria are listed below:

---

[8] Chris Argyris, "Some Problems in Conceptualizing Organizational Climate: A Case Study of a Bank," Administrative Science Quarterly, II (March 1958), pp. 501-520.

[9] John K. Hemphill, "The Measurement of Group Dimensions," Journal of Psychology, 29 (1950), pp. 325-342.

> (1) Autonomy is the degree to which a group functions independently of other groups and occupies an independent position in society.
>
> (2) Control is the degree to which a group regulates the behavior of individuals while they are functioning as group members.
>
> (3) Flexibility is the degree to which a group's activities are marked by informal procedures rather than by adherence to established procedures.
>
> (4) Hedonic tone is the degree to which group membership is accompanied by a general feeling of pleasantness or agreeableness.
>
> (5) Homogeneity is the degree to which members of a group are similar with respect to socially relevant characteristics.
>
> (6) Intimacy is the degree to which members of a group are mutually acquainted with one another and are familiar with the more personal details of one another's lives.
>
> (7) Participation is the degree to which members of a group apply equal effort to group activities.
>
> (8) Permeability is the degree to which a group permits ready access to membership.
>
> (9) Polarization is the degree to which a group is oriented and works toward a single goal which is clear and specific to all members.
>
> (10) Potency is the degree to which a group has primary significance for its members.

(11) Stability is the degree to which the group resists changes in its size and in turnover of its members.

(12) Stratification is the degree to which a group orders its members into status hierarchies.

(13) Viscidity is the degree to which members of the group function as a unit.[10]

The characteristics as portrayed in the responses to the group dimensions description questionnaire reflect qualities of group relationships or performance. In one reported case, individuals in the teaching profession, there is evidence that several characteristics of their work group as portrayed by the dimension scale related to the satisfactions of their job.[11] If the data of one experimental laboratory project can be depended upon, there is suitable evidence that there is a tendency for the group dimensions, hedonic tone, viscidity, and participation to be positively related to group productivity.

Pace[12] developed a systematic objective measuring instrument to characterize college environments called the College Characteristics Index (CCI), which was patterned after Murphy's need-press theory and directed towards college students. The environmental processes were viewed as counterparts to personal needs, and the performance in the environment was seen as a function of the congruence between the need-press.

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[10] John K. Hemphill, "Leadership Behavior Associated with the Administrative Reputation of College Departments," The Journal of Educational Psychology, 46 (November 1955), pp. 388-389.

[11] John K. Hemphill, Group Dimensions, A Manual for Their Measurements (Columbus, Ohio: Bureau of Business Research, Ohio State University, 1956), p. 46.

[12] C. Robert Pace, "The Influence of Academic and Student Subcultures in Colleges and University Environment" (Microfilmed Final Report, Cooperative Research Project No. 1083, University of California at Los Angeles, 1964), p. 5.

Notwithstanding the differences in approach, strategy, and assumptions, and the differences in item content as well, there appear to be some general similarities in the results of the various studies.

Summary

The foregoing discussion on organizational climate has described the concept in terms of social environments. Environmental concepts seem to be most readily accepted by those theorists who predicate their paradigm on the social system; these include as important social circumstances the informal group and employee-centered behavior. The definition of organizational climate as stated by Tagiuri places it in the realm of interpersonal relations as depicted by the perceptions of the behavior of the individual members of the group. Implicit in the entire discussion is the dependence of behavior on environment. The various theories outlined in the foregoing discussion place varying degrees of importance of environment on the action of individuals in groups. Contemporary theorists agree that group effectiveness is directly related to the development of interpersonal relationships within the group.

This simplistic approach to the concept of organizational climate allows for investigation of its consequences. This approach is not to be construed as an indication that organizational climate is unidimensional. In reality, it appears that organizational climate is an extremely complex concept. Most likely, further research and analysis of the concept will probably reveal a multi-level and multi-concept nature.

Halpin and Crofts' Investigation

This investigation was patterned after Halpin and Croft's study, which was initiated in the early sixties at the Midwest Administration Center at the University of Chicago.[13]

Halpin and Croft assessed the organizational climate of seventy-one elementary schools throughout the United States. The instrument used included a series of Likert-type items which, when responded to, described the perceived relationships among teachers and their relationships with their principals. The sixty-four items in the Organizational Climate Description Questionnaire (OCDQ) were factorially grouped into eight subtests. Four of the subtests pertained primarily to the relationships found among the faculty, and four to the principal as the leader. From the results of 1,151 respondents, the "personality" or climate of each school was ascertained. The domains measured by each of the subtests are:

Teachers' Behavior

> (1) Disengagement refers to the teachers' tendency to be "not with it." This dimension describes a group which is "going through the motions," a group that is "not in gear" with respect to the task at hand. It corresponds to the more general concept of anomie as first described by Durkheim. In short, this subtest focusses upon the teachers' behavior in a task-oriented situation.

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[13] Andrew W. Halpin and Don B. Croft, The Organizational Climate of Schools (Midwest Administrative Center, University of Chicago, 1963), passim.

(2) Hindrance refers to the teachers' feeling that the principal burdens them with routine duties, committee demands, and other requirements which the teachers construe as unnecessary busy-work. The teachers perceive that the principal is hindering rather than facilitating their work.

(3) Esprit refers to morale. The teachers feel that their social needs are being satisfied, and that they are, at the same time, enjoying a sense of accomplishment in their job.

(4) Intimacy refers to the teachers' enjoyment of friendly social relations with each other. This dimension describes a social-needs satisfaction which is not necessarily associated with a task-accomplishment.

Principal's Behavior

(5) Aloofness refers to behavior by the principal which is characterized as formal and impersonal. He "goes by the book" and prefers to be guided by rules and policies rather than to deal with the teachers in an informal, face-to-face situation. His behavior, in brief, is universalistic rather than particularistic; monothetic rather than idiosyncratic. To maintain this style, he keeps himself--at least "emotionally"--at a distance from his staff.

(6) Production emphasis refers to behavior by the principal which is characterized by close supervision of the staff. He is highly directive, and plays the role of a "straw boss." His communication tends to go in only one direction, and he is not sensitive to feedback from the staff.

(7) Thrust refers to behavior by the principal which is characterized by his evident effort in trying to "move the organization." "Thrust" behavior is marked not by close supervision, but by the principal's attempts to motivate the teachers through the example which he personally sets. Apparently, because he does not ask the teachers to give of themselves any more than he willing gives of himself, his behavior, though starkly task-oriented, is nonetheless viewed favorably by the teachers.

> (8) Consideration refers to behavior by the principal which is characterized by an inclination to treat the teachers "humanly," to try to do a little something extra for them in human terms.[14]

The examination of the school scores which were obtained on these eight subtests allowed the investigators to identify differential characteristics among the schools' climates. The main factor observed was comparison of the range and relativity of open versus closed climates.

This study was initiated through the development of a paradigm to theoretically describe organizational climate. Halpin examined the research literature on leadership and group behavior and found that there were a number of ways of classifying these attributes. As a result of that review, the following theoretical taxonomy was used:

First, group interactions were categorized under the following four headings:

(1) Interactions determined primarily by the leader's behavior.

(2) Behavior attributable to characteristics of the group qua-group.

(3) Interactions determined by procedures or by actions of an executive in a position hierarchically superior to the leader himself.

(4) Interactions determined primarily by the behavior of individuals qua-individuals, and hence associated directly with the "personality," assets and liabilities of the individual person.

A second way of classifying organizations was in respect to their "effectiveness" or "ineffectiveness." Four "idealized types" of organizations were noted:

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[14] Ibid., pp. 29-32.

(1) The "effective" organization.

(2) The social needs-oriented organization.

(3) The task-oriented organization.

(4) The "ineffective" organization.

A third way of classifying group interactions was the relationship between social needs of the individual and the social control imposed upon him as a member of the group.

Items were collected and classified according to the above paradigm.

Preliminary forms of the OCDQ were constructed and tested in different samples of schools and the items were analyzed for their concordance within the theoretical structure. Further, this pilot study identified a tentative set of domains of organizational climate which seemed to warrant further study.

At this point in the development of the OCDQ, four preliminary forms of the OCDQ were administered to a heterogeneous sample of seventeen elementary-school faculties. Items in each of the four forms were drawn from the various areas of the paradigm, so that there was a balanced coverage across the four forms. An item analysis was made of each of the four versions and determined which items differentiated among schools. Those that showed a maximum variance across schools and a low variance within the schools were kept for further study. The items were further examined to identify those items in each of the forms which seemed to align themselves on a discernible dimension. The findings of this preliminary test allowed the number of items to be reduced to 160, and replaced into sixteen dimensions which were grouped under sections of taxonomy as shown in Figure 1.

As a result of the analysis of form I, form II was then constructed composed of 160 items. Form II was administered to ninety-one respondents. The same evaluation process was used to analyze the responses to learn which dimensions had survived. At this point, the eight subtest dimensions were identified. Through a process of iteration, the investigators were able to reduce the number of items in the second form of the OCDQ to eighty items, which composed form III.

Form III was then administered to a sample of sixty-six schools throughout the country. The item correlations for the 1,151 respondents were computed for the eighty items. Examination of the patterns of correlations and the cluster analysis of the matrix formed by the response to the items was used to determine how well each item fitted the dimension to which it was to have been assigned. As a result of this phase of the investigation, sixteen additional items were removed because of redundancy, and because the additional variance which they contributed was not significant. The final form of the OCDQ, included sixty-four items which it is presumed provides a measure of eight dimensions of organizational climate. A principle-axis factor analysis was secured, extracting eighteen factors with eigenvalues of 1.00 or above. Since the eight dimensions were verified through identifications in the theoretical paradigm, the investigators proceeded to secure a varimax rotational solution for the first eight factors. The data obtained from this solution supported the way in which the items were classified on a basis of both a content analysis and a cluster

Figure I--Tentative 16 Dimensions of which the 160 Items of the OCDQ (form II) Were Assigned, Grouped According to the Relevant "Source of Interaction."

The Leader

Thrust
Production Emphasis
Communication Clarity
Aloofness

The Group

Group Autonomy
Synergy
Esprit
Disengagement

The Individual

Consideration
Procedural Acceptance
Intimacy
Hindrance

Procedures

Monitoring
Procedural Control
Procedural Stability
Procedural Consideration

(Note: The underlined dimensions are those which were finally retained in Form IV of the OCDQ.)

analysis. The items in each subtest tended to yield high loadings on only one of the eight factors. Hence, each subtest tended to be reasonably independent and could be considered to represent one factor.

Once the items in the questionnaire had been identified by subtest, the investigators then computed the subtest scores, factor analyzing the respondents (n = 1151) scores for each of the subtests. It was found that three of the eight factors had eigenvalues sufficiently large to suggest that the best solution would be found in a three-factor rotational solution. The three-factor solution indicated that the subtest of intimacy and consideration tend to secure high loadings on factor I, which was identified as social needs. Esprit and thrust tended to yield high loadings on factor II, which was identified as esprit. And the third factor (III), in which aloofness and production emphasis secured the highest loading, was identified as social control.

Following the identification of the three-factor solution, the seventy-one schools were analyzed. School profiles were constructed based on the raw scores on the eight subtests. The profiles were then factor analyzed, extracting the three-profile factors, which allowed identification of six major patterns of factor loadings among the profiles. As a result of the extraction of the six patterns, the investigators were able to rank these six organizational climates in relative degrees of open or closed, and then use the content of the subtest items to describe, for each climate, the behavior which characterizes the principal and the teachers. The six organizational climates, based on the profiles, are as follows:

The Open Climate

The open climate depicts a situation where the members enjoy a high esprit, the teachers work well together, that is, they have low disengagement, low hindrance, they are not burdened by mounds of work, and they apparently feel no need for a high degree of intimacy. The behavior of the principal represented an appropriate integration between his own personnel and the role which he is required to play; he's genuine.

The Autonomous Climate

The distinguishing feature in this organizational climate is the almost complete freedom which the principal gives the teachers to provide their own structure for interaction as well as finding ways within the group for satisfying their own social needs.

The Control Climate

The control climate is marked, above everything else, by the press for achievement at the expense of the satisfaction of social needs. Everyone works hard, but there is little time for friendly relationships with others or for deviation from established controls and directives.

The Familiar Climate

The main feature of this climate is the conspicuous friendly manner of both principals and teachers. Social-needs satisfaction is extremely high, while contrawise, little is done to control or direct the group's activity toward goal accomplishment.

The Parental Climate

The parental climate is characterized by the "ineffective uncluttered attempts of the principal to control his teachers while satisfying his social needs." In the investigators' judgment, his behavior was not genuine, and as perceived by the teachers, nonmotivating. This, of course, is a type of closed climate.

The Closed Climate

The closed climate marks a situation in which the group members obtain little satisfaction and respect to either task accomplishment or social needs. In short, the principal is ineffective in directing attitudes, and, at the same time, he is not inclined to look out for the welfare of faculty members. This climate is the most closed and the least genuine climate of all the investigators identified.

Halpin and Croft, with this investigation, have provided an instrument which is a useful technique in describing the climate in schools. It provides a basis from which further investigation in this area can be launched.

CHAPTER III

RESEARCH PROCEDURES

The procedure in the construction of the Organizational Climate Description Questionnaire - Higher Education (OCDQ-HE) and its use in the analysis of the departments sampled in this chapter involve the selection of samples, the collection of data, and the method of attacking the problem.

Selection of Samples

Since it was necessary to develop pilot questionnaires to provide the investigator with information which could be used to identify the items to be included in the main research instrument, two groups of departments were selected for this investigation. One group included five pilot samples and the other was the main sample.

Pilot Samples

Five randomly-selected groups of four academic departments each were used for the administration of the preliminary forms of the Organizational Climate Description Questionnaire - Higher Education (OCDQ-HE). The departments for the pilot samples were randomly selected from Oregon State University, Portland State University, and the University of

Oregon.[1] The selection was based on (1) the criteria listed for the main sample,[2] and (2) nonselection for the main sample. Parallel forms of the five preliminary questionnaires were administered to the faculty members from four departments in each group in the same manner as the final questionnaire was administered.

Main Sample

The investigation included a random sample of academic departments in selected colleges and universities[3] in the states of Oregon, Washington, and Idaho. The following criteria were used to determine eligibility of selected departments:

(1) The department chairman must have been in the leadership role for a minimum of two full years.

(2) Exclusive of the department chairman, the department faculty must have at least five other full-time teaching faculty members who have been in the department during the past academic year.

(3) A primary responsibility of the department must be undergraduate instruction.

Fifty-two academic departments were chosen at random from the population of all academic departments with like administrative units. This sample was selected to determine the departments to be included in the pilot study. The respondents were faculty members within those departments, exclusive of the chairmen.

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[1] List of departments by institution is included in Appendix D.

[2] See below.

[3] List of departments by institution is included in Appendix D.

Collection of Data[4]

Since information of a behavioral nature was being sought, hesitancy of the subjects to respond fully and honestly was anticipated. Therefore, it was essential to have a type of design which encouraged unrestrained responses, and, at the same time, provided sufficient data to make valid conclusions.

The collection of data included the procedures used by the campus coordinators, the description of the investigator's campus visitations, and the method of distribution and collection of questionnaires.

Campus Coordinators

To assure clarity of purpose of this investigation and maximum return of the various forms of the questionnaire, an individual on the faculty of each institution where selected departments were located was personally interviewed. His cooperation and participation as the administrator of the instrument was requested. This individual was designated as campus coordinator. Following an initial telephone request and tentative acceptance by the on-campus faculty member, a packet of materials was mailed to each person. Included were a letter of solicitation, information from the investigator, and a summary statement of the proposed investigation.[5]

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[4] The data collection procedure is patterned after that used by Patricia Allen in a doctoral dissertation investigation, "An Investigation of Administrative Leadership and Group Interaction in Departments of Physical Education for Women of Selected Colleges and Universities."

The letter from the investigator explained the purpose of the study, and asked for the individual's cooperation in assuming the role of coordinator. Each faculty member who agreed to supervise the administration of the questionnaire was then asked to assess the eligibility[6] of the departments selected on his campus.

The campus coordinators arranged for personal meetings for the investigator with the appropriate administrative official of the university, the deans of the colleges or schools in which the selected departments were located, and each departmental chairman.

At the appropriate time, the coordinators made certain that letters introducing the investigation and asking for the faculty to complete the questionnaire were distributed to each eligible faculty member in the selected departments. They distributed the questionnaires to the various faculty members, and completed the follow-up procedures.

Campus Visitation

The visit to each campus on the part of the investigator was used to (1) thoroughly brief the coordinators about their role in the collection process, (2) promote the cooperation of the institutional administrators, the departmental chairmen, and the faculty members in the selected departments. The investigator answered questions and responded to concerns expressed by the campus leaders. He inquired about possible objections to his approaching the faculty members in the selected departments, and finally, he promoted the completion of the questionnaires. An additional purpose of the visit was to explain the confidential coding system.[7] In addition, it was emphasized that no evaluative purpose was intended or implied. These features were in keeping with the wish to encourage maximum subject cooperation, and to foster full and honest responses to the questionnaire statements.

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[5] See Appendix E.

[6] See page 31.

Distribution and Collection of Questionnaires

Packets containing the questionnaires for each participating faculty member were mailed in bulk to each on-campus coordinator, who assumed the responsibility for placing the instrument in the individual faculty member's mailbox. The questionnaires had been constructed in such a way that the faculty member's responses could be recorded by clerks on sensing sheets which could then be transferred to nine-track magnetic tape for later computer analysis. A postage-paid return envelope was included with each survey form. All forms were coded by hand on the front page. The code was necessary in order to identify departmental affiliation and nonresponding faculty members. Names of respondents and departments were neither required nor recorded by the investigator.

The entire collection of data for both the pilot and the final investigations was completed over eight-week time periods. The follow-up procedures were accomplished independent of the investigator. The on-campus coordinators, two weeks after the questionnaires were made available, initiated the follow-up process with a general follow-up letter[8] which was placed in each participating faculty member's mailbox. At the end of four weeks, a letter mailed by a hired clerical assistant working out of the Office of Planning and Institutional Research at Oregon State University was sent to each of the coordinators listing those respondents who had not submitted replies. The coordinator at Washington State University sent the letter to the Oregon State University on-campus coordinator. Follow-up form letters and questionnaires were distributed by the coordinators to faculty members who had not responded. During the pilot investigation, an additional communication with each nonresponding faculty member was made by telephone; they were asked to complete the questionnaire and were thanked for their participation. This completed the follow-up procedures.

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[7] See Appendix E.

The investigator has provided to those participating in the investigation a summary of the results, the final form of the questionnaire, and a letter of appreciation for the cooperation which was given him.

Method of Attacking the Problem

The plan of this investigation is divided into eight parts: (1) analysis of data, (2) description of the theoretical paradigm, (3) criteria for item development, (4) generation of the item bank, (5) preliminary forms of the questionnaire, (6) the final form of the questionnaire,

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[8] See Appendix G.

(7) analysis of the subtest scores, and (8) analysis of the academic department profile scores.

The design used for this investigation was the Organization Climate Description Questionnaire (OCDQ) developed by Halpin and Crofts for elementary schools in 1962.[9] The investigator hypothesized that replication of their design and the resultant factorial patterns that are to be drawn would verify the appropriateness of the theoretical paradigm originally posited.

Analysis of Data

Data computation was accomplished primarily by the IBM 360/50 housed at the University of Oregon Computing Center. The responses to the questionnaire from each faculty member were recorded on individual sensing sheets and then transferred to nine-track magnetic tape.

The numerical values five through one were assigned keyed responses A through E, respectively. Though respondents were forced to chose from among discrete responses, the data from each item were was treated as a continuum. The five-point scale provided enough range of choices to identify perceived differences which in reality are continuous.

The analysis of the data primarily consisted of factor analytic techniques.

> Factor analysis is suited for the purpose of deriving abstractions from quantitative data; it enables us to delineate the fewest and at the same time, the most

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[9] Andrew W. Halpin and Don B. Croft, The Organizational Climate of Schools (Midwest Administrative Center, The University of Chicago, 1963).

> salient patterns of response which can account for the major portion of the variance within a given matrix. The patterns which we identify--ordinally referred to as "dimensions"--constitute statistically derived abstractions about the phenomena. But the point to be stressed is that these abstractions (i.e., the factorially derived dimensions) serve the identical purpose as other abstractions which we can deduce by alternative, but equally logical means.[10]

The factor analyses with one exception were accomplished through the use of the program FACTOL, a program adapted from the IBM system/365 Scientific Routine Package, H20-0205-3. Analysis of the departmental profile scores was accomplished by use of the program U0BMDX72. These programs perform a principle component solution and the various rotations of the factor matrix. The varimax rotation is to simplify columns (factor) rather than rows (variables) of the factor matrix. The principle component analysis is used to determine the minimum number of independent dimensions needed to account for most of the variations in the original set of variables.

A stepwise regression computer program U0BMD02R, was used to determine the number of variables necessary to produce stable subtest scores. The first factor had a large number of variables loading on it, and, therefore, its analysis was used to reduce the number of variables (items) to be used in subtest I.

The program computes a sequence of multiple linear regression equations in a stepwise manner. At each step, one variable is added to the regression equation. The variable added is the one which makes the greatest reduction in the eron sum of the squares. Equivalently, it is the variable which has the highest partial correlation with the dependent variable partialled on the variables which have already been added; and, equivalently, it is the variable which, if it were added, would have the highest F-ratio. The dependent variable used was the sum of all the responses loading on the given factor.

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[10] *Ibid.*, p. 14.

Description of the Theoretical Paradigm

The theoretical deductive approach was used to validate the map of the domain of organizational climate which was inferred from the factor analysis of the items in the questionnaire. The dimensions of organizational climate assumed in the original investigation were used in this study. The two approaches were used as dialectical checks against each other.[11]

Halpin and Croft found that three schemata of climate theory were present throughout the literature.[12] The theories are found in Chapter II.

This investigation, as did the orginal, used the paradigm as the major "theoretical" bias to approach the gathering and categorization of items. The investigator further delineated and clarified the paradigm by defining the sections: Interaction determined by the loader's Behavior and Group Behavior.

The differentiation of these sections was accomplished through the use of the factors validated by Hemphill.[13] The subtest dimensions identified in the original study were used as well. The investigator established a two-dimensional paradigm which was used to establish construct validity.[14] Halpin's original paradigm was placed on one axis and OCDQ subtest dimensions on the other. The two dimensional paradigm was used to specify the domain to which the items were assigned. The paradigm provided a well-specified set of domains which provided a rationale for the assignment of potential items.

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[11] *Ibid.*

[12] See pages 23-24.

[13] See page 19.

Criteria for Item Development

As in the original investigation, a set of Likert-type items were constructed. The following is an example of the items used in Halpin and Croft's work:

(1) The principal ensures that teachers work to their full capacity.
(2) The principal is in the building before teachers arrive.
(3) The principal helps teachers solve personal problems.
(4) Teachers ask nonsensical questions in faculty meetings.
(5) Most of the teachers here accept the faults of their colleagues.[15]

The scale against which the respondent indicated the extent to which each statement characterized the school was defined by five categories: (a) almost always occurs, (b) frequently occurs, (c) approximately equal in occurrence and nonoccurrence, (d) infrequently occurs, and (e) almost never occurs.

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[14] For a discussion of construct validity see Jum C. Nunnally, Psychometric Theory (New York: McGraw Hill Book Co., 1967), pp. 83-94.

[15] Halpin and Croft, op. cit., p. 19.

Considerable flexibility was used in the selection of items to be retained in each phase of the development of the questionnaire. Items were needed that would yield a "reasonable" amount of consensus within a given academic department, yet permit discrimination among departments. An intuitive, common-sense basis was used to categorize items according to the cells of the paradigm. Items were selected that describe critical incidents in departments. Furthermore, items were evaluated for internal consistency and clarity. Items that were found to be redundant and inappropriate were removed. The investigation is a series of iterations using the described process.

Generation of the Item Bank

The original OCDQ was used as a guide in the development of the item bank. The items from it were re-phrased to make them appropriate to this investigation. Other college instruments such as the College Characteristics Index (CCI, Pace and Stern, 1958), Stern's Activities Index (AI), College and University Environmental Scales (CUES, Pace, 1963), College Press Scales (Thistlethwaite, 1959), The Environmental Assessment Technique (EAT, Astin and Holland, 1961), College Characteristics Analysis (CCA, Pace, 1964), and other instruments of similar type were searched for appropriate items. The faculty of the University of Oregon was asked to submit items that describe interpersonal events and experiences in academic departments that have most vividly impressed them. Additional items were developed by the investigator that were needed to provide thorough item coverage of the entire paradigm. A total of 600 items were collected or constructed.

Preliminary Forms of the Questionnaire

Five parallel forms of the questionnaire were constructed from 375 items which remained after the categorization process described previously was completed.[16] Five groups of seventy-five items selected by a systematic plan from the paradigm were constructed. Each cell of the paradigm was equally represented in each of the five groups. Groups were paired to form questionnaires of 150 items in length. The paired groups created an overlapping design across the preliminary forms, that is, group A with group B, B with C, C with D, D with E and E with A.

The preliminary forms were administered to pilot samples of heterogeneous academic departments in colleges and universities in Western Oregon. Items to be selected for further investigation were chosen on the basis of the following analysis of results:

(1) Ordinal consensus of items within departments.[17]

(2) Item factor analysis at respondent level to identify items to be included in the final questionnaire and potential subtests.

(3) Examination of the descriptive adequacy within each cell of the paradigm and intrinsic content.

Research Form of the Questionnaire

As a result of the analysis of the results of the five parallel pilot investigations of the preliminary forms of the questionnaire, ninety items were selected for inclusion in the research form. Each item included was investigated and selected because it tended to have a reasonably high coefficient of orthogonal consensus within groups of respondents, possessed a reasonably high factor loading, and seemed to be consistent with the theoretical paradigm. The order of the items was determined by use of random number tables.[18]

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[16] See pages 39-40.

[17] Robert K. Leik, "A Measure of Ordinal Consensus," Pacific Sociological Review, 9 (Fall, 1966), pp. 85-90.

The research questionnaire was sent to the total eligible faculty of fifty-two randomly selected departments in twelve institutions.

Preliminary analysis of the responses to the questionnaire dictated that ten items were to be removed, leaving only eighty to be analyzed. The items removed were found to be poorly worded, or inappropriate to the key. Randomly selected halves of the responses were factor analyzed to cross validate the items selected.[19] This technique was used to assure the investigator that the responses were indeed depicting the climate as defined. The data from the total sample were also analyzed. From these three factor analyses, the eighty items were preliminarily assigned to subtests using the rotated factor loadings as criteria.

The total data set was analyzed using four, five, six, seven, eight, and nine-factor varimax rotational solutions. Inspection of these analyses indicated that a six-factor (subtest) solution seemed to be most productive. The eighty remaining items were preliminarily assigned to subtests using the six-factor rotated solution.

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[18] Ronald A. Fisher and Frank Yates, Statistical Tables for Biological, Agricultural and Medical Research, 4th ed. (New York: Hafner Publishing, 1953), pp. 114-119.

[19] Quinn McNemar, Psychological Statistics, 4th ed. (New York: Weley and Sons, 1969), p. 210.

Analysis of the Subtest

To develop subtests which measure the various domains or different types of behavior, item scores were grouped by using their rotated factor loadings. The mean and standard deviation of each subtest, summing across all 575 respondents, were determined. The mean was obtained by summing each individual's item scores, subtest by subtest, and then dividing each of the six sums by the corresponding number of items in the subtest.

The subtest scores were factor analyzed. Two, three, four, five, and six-factor solutions were accomplished. The resulting factor matrix directed the use of a three-factor solution of the organizational climate.

Analysis of the Academic Department Profile Scores

The analysis of the forty-seven academic departments was based upon their profile scores of the six subtests. The raw scores at the departmental level were converted into standardized scores which were standardized in two ways: normatively and ipsatively. The departmental profiles were then factor analyzed extracting the three-profile factors. For each of these departmental profiles, the mean profile was computed for those profiles within the set which were distinguished by high loadings on one of the three-profile factors. The prototypic profiles were designated and organizational climates were defined in terms of these prototypes. Overall analysis of the climate was developed with respect to open-closed continuum. The content of the subtest items were used to describe, for each climate, the behavior that characterized the departmental chairman and faculty members.

Summary

The purpose of this investigation was to construct an organizational climate description questionnaire for departments of higher education, and to identify potential domains within the departments used in this investigation. Fifty-two college and university departments provided 575 faculty members as subjects for the investigation. Subject participation was solicited by on-campus visits and by mail. This enabled the investigator to distribute and ultimately to receive the questionnaires which were used to complete the investigation. The anonymity of participants was protected, and no attempt was made to evaluate the effectiveness of either the administrators or the members of the various departments. The responses were treated primarily through factor analytic techniques. The research instrument was validated through construct validation by comparison against a theoretical paradigm.

CHAPTER IV

ANALYSIS OF DATA

The results of this investigation into the development of the Organizational Climate Description Questionnaire - Higher Education (OCDQ-HE) and the identification of domains within departmental climates are presented in this chapter. The data are presented and discussed for both the pilot and main investigations.

Pilot Investigation

The pilot investigation used to select items for the research questionnaire involved two aspects: (1) the Response Rate, and (2) the Analysis of the Pilot Investigation Data.

Response Rate

Five preliminary forms of the questionnaire were sent out to 272 faculty members in twenty departments[1] at the University of Oregon, Portland State University, and Oregon State University. One hundred sixty-six questionnaires, or 61%, were eventually returned. Each form was distributed to four departments. The clerical assistant recording completed questionnaires reported that the lowest response rate on a pilot instrument was 55.2%. The other response rates were 66.7%, 65.0%, with the remaining two 60.0%. The lowest department response rate received was 25%. Rates for all other departments were above 50%.

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[1] See Appendix D for a listing of the departments.

Since the purpose of the pilot investigation was limited to providing empirical information helpful in identifying potential items for inclusion in the main research instrument, these return percentages are considered adequate.

The identity of the individual departments is not available to the investigator because of the coding procedure employed; therefore, the departmental return percentages are not presented.

Analysis of the Pilot Investigation Data

An analysis of each of the five versions of the pilot form of the instrument was made. Each item was analyzed in terms of (1) its potential as an item within an identifiable domain as indicated by its relative factor loadings; (2) its adequacy in terms of the two-dimensional paradigm, and (3) its intrinsic content. Further, the responses to each item were used to identify those items that showed maximum variance across departments while at the same time yielding a relatively high orthogonal consensus[2] within departments.

The overlapping design of the five forms of the questionnaire allowed five 150 item factor analyses to be attempted. The first analysis submitted to the computer ran for sixty minutes without completing the program of calculations. The potential high cost mitigated against completion of these factor analyses. Had these overlapping design factor analyses been completed, more information would have been available to make decisions about which items to include in the research form of the instrument, and potential subtest domains.

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[2] Robert K. Leik, "A Measure of Ordinal Consensus," Pacific Sociological Review, 9 (Fall 1966), pp. 85-90.

The items were analyzed in seventy-five variable matrices. Each of the five sets of seventy-five items was analyzed across eight departments. This approach was used to identify those items which seemed to load on potential climate dimensions, and allowed decisions to be made as to what subtest items or dimensions appear to describe the organizational climate in departments.

These findings led to the development of the research instrument containing ninety items. The items included were drawn from each of the potential subtest domains identified and each cell of the paradigm. They were arranged in random order in the questionnaire.

Main Investigation

The research instrument, developed from the data gathered through the pilot investigation, was circulated to the faculty members in fifty-two academic departments of twelve institutions of higher education.

The analysis of the data obtained from the faculty members in the main sample is treated from the following standpoints: Response Rate, the Factor Analysis at Item Level, the Validation of the Instrument, the Analysis at Subtest Level, the Reliability Estimates of the Subtests, and the Analysis of Departmental Profile Scores.

Response Rate

The universities and colleges were selected on the basis of their geographic proximity to the University of Oregon, and the numerical size of departmental faculties. Thirteen institutions were identified. Personal letters were sent to the appropriate administrative authority on each campus requesting permission to use that institution as a reservoir for departments. Twelve of the thirteen institutions agreed. At the request of the administration of Western Washington State College, that institution was not included. Of the twelve remaining institutions, fifty-two departments[3] were selected at random and identified as being eligible to participate in the study.

Six hundred ninety-eight faculty members from these departments met the investigation criteria and were provided instruments. Five hundred seventy-five responses were received by the investigator, a percentage rate of 82.1. Forty-seven of the fifty-two departments were used in the departmental profile analysis. The five departments not included were deemed to be unacceptable to analysis because of the low percentage of responses available. This resulted because a few coordinators neglected to place code numbers on the follow-up instruments. Twenty questionnaires were received that could not be identified. The potential number of returns from each department ranged from a minimum of five up through forty-two. With the exception of one department, which had six of a possible fourteen responses, all other departments analyzed had at least a 50% response rate. The individual department response rates are not available to the investigator and therefore cannot be presented.

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[3] See Appendix D for a listing of the departments.

Factor Analysis at Item Level

Upon the completion of the data collection phase of the investigation, a number of principle-component factor analyses of eighty-item data matrices were obtained. It has been previously noted that ten items were removed prior to this initiation of the analysis phase because they were judged inappropriate.

A total sample (n = 575) item factor analysis was obtained. The unrotated factor matrix is located in Appendix C. An eighteen-factor rotational solution was used to group items by high factor loading into subtests. It was apparent that a simpler solution was needed to identify the subtest item groups because, though seventeen factors had relatively high eigenvalues (above 1.0), one and two items were loading on several dimensions.

Using Halpin's previous experience with the OCDQ, the investigator felt that a solution of possibly five, six, seven, or eight factors might yield a better structural solution. The suggested factor solutions were calculated. The six-factor solution appeared to provide the most useful structure. Using this solution, the investigator found seventy of the remaining items yielding high loadings on at least one of the six factors. This provided an adequate number of items for the first four of the six dimensions. The last two subtests had only four items load on each dimension. Five items had relatively low factor loadings on all subtest dimensions. Five items showed a saturation of two or more dimensions. The foregoing two groups of items were removed from the questionnaire.

An additional twenty items were excluded from Subtest I as twelve items were determined to be sufficient to provide a reliable subtest score. The items retained were identified through application of a stepwise regression analysis. A composite of the scores of the thirty-two items for each respondent was accepted as the criterion. The twelve items included have a multiple correlation of .91 with the criterion.

The fifty-item final instrument grouped by subtest is found below in Table I. The questionnaire is found in Appendix A. The item order was determined by use of random number tables.[4]

As a result of the factor analysis, the best factorial way of categorizing the organizational climate of departments has been identified. The rotated factor-item matrix for the six-factor solution can be found in Table II.

The dimensions of organizational climate which are being measured by each subtest are defined below.

The first dimension is identified in terms of the behavior of the departmental chairman, characterized by his supportive role of faculty members. This factor resembles the one described in Halpin's study of consideration. The departmental chairman is described in relationship to his ability to promote inter-personal relationships among the staff.

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[4] Ronald A. Fisher and Frank Yates, Statistical Tables for Biological, Agricultural and Medical Research, 5th ed. (London: Oliver and Boyd, 1954), pp. 114-119.

Table I

OCDQ-HE, FORM I, ITEMS THAT COMPOSE SIX SUBTESTS

I. Consideration

7. The department head changes his approach to meet new situations.
17. The morale of the faculty members is high.
35. The department works as a committee of the whole.
38. The department head treats all faculty members as his equal.
39. The department head accepts change in departmental policy or procedures.
43. The department head finds time to listen to faculty members.
48. The department head delegates the responsibility for department function among the faculty.
49. The department head engages in friendly jokes and comments during department meetings.
50. The department head displays tact and humor.
52. The department head has faculty members share in making decisions.
59. The department head uses constructive criticism.
60. The department head is friendly and approachable.

II. Intimacy

4. There is a great deal of borrowing and sharing among the faculty.
14. There are periodic informal social gatherings.
16. Faculty members talk to each other about their personal lives.
26. Faculty members enjoy getting together for bowling, dancing, card games, etc.

Table I (Continued)

II. Intimacy (continued)

30. The department is thought of as being very friendly.
36. New jokes and gags get around the department in a hurry.
56. There are opportunities within the department for faculty members to get together in extra-curricular activities.
62. Close friendships are found among the departmental faculty.
71. Everyone enjoys their associations with their colleagues in this department.

III. Disengagement

5. Individual faculty members are always trying to win an argument.
9. The important people in this department expect others to show respect for them.
10. Older faculty control the development of departmental policy.
22. The department yields to pressure of a few students who are not representative of student opinion.
31. Faculty members talk about leaving the college or university.
32. Faculty members approach their problems scientifically and objectively.
33. Faculty start projects without trying to decide in advance how they will develop or where they may end.
42. Tensions between faculty factions interfere with the departmental activities.
46. Scheduled appointments by faculty members are not kept.
51. Faculty members in this department use mannerisms which are annoying.
72. Faculty members express concern about the "deadwood" in this department.

Table I (Continued)

IV. Production Emphasis

6. The faculty uses parliamentary procedure in meetings.
8. The department head maintains definite standards of performance.
20. The department head has everything going according to schedule.
29. Faculty members seem to thrive on difficulty--the tougher things get, the harder they work.
34. The department head sells outsiders on the importance of his department.
44. Faculty members ask permission before deviating from common policies or practices.
54. The department head is first in getting things started.
61. The department head encourages the use of certain uniform procedures.
69. Faculty members recognize that there is a right and wrong way of going about departmental activities.
76. The department head puts the department's welfare above the welfare of any faculty member in it.

V. Student Involvement

13. Students are encouraged by faculty members to criticize administrative policies and teaching practices.
40. When students do not like an administrative decision, they really work to get it changed.
45. There is a recognized group of student leaders within the department.
65. Students call faculty members by their first names.

Table I (Continued)

VI. Detachment

58. The department head regards what faculty members do outside the group as of no concern to him.

63. Students respond to ideas and events in a pretty cool and detached way.

70. Students take little interest in departmental administration (until they are personally affected).

75. Most students are more concerned with the present than the future.

Table II

ROTATED ITEM FACTOR MATRIX FOR THE 80 ITEMS OF THE OCDQ-HE RESEARCH FORM (N = 575)

Subtest Item Number	Subtest						
	I	II	III	IV	V	VI	h^2
			Consideration				
7.	57*	22	09	20	-04	04	43
17.	54	38	34	23	18	02	64
35.	50	28	30	18	11	-12	48
38.	70	13	21	-05	16	-04	59
39.	75	17	17	11	15	03	66
43.	71	17	08	12	00	02	56
48.	54	09	10	23	19	04	40
49.	56	39	02	-06	-15	03	49
50.	77	24	12	08	-04	04	66
52.	77	13	16	17	12	-02	68
59.	61	20	-02	28	07	02	50
60.	70	27	10	-02	-02	02	58
			Intimacy				
4.	21	56	32	01	09	01	47
14.	16	58	04	07	-04	11	39
16.	19	59	00	-12	06	-02	40
26.	04	63	09	05	-03	13	42
30.	29	55	28	12	13	07	50
36.	12	56	03	09	11	12	36
56.	19	62	-02	05	02	14	45
62.	24	58	08	15	01	01	42
71.	25	48	41	24	10	-16	56
			Disengagement				
5.	-14	-07	-55	02	01	-08	33
9.	-26	-10	-53	21	-05	03	41
10.	-29	-16	-45	17	-01	04	35
22.	-30	10	-35	-03	10	03	23
31.	-31	-10	-44	-18	-04	-20	37
32.	20	23	40	32	22	-04	41
33.	-23	-03	-35	-24	02	-20	28
42.	-31	-15	-63	-05	06	-09	53
46.	-12	-01	-38	-11	02	01	17
51.	-06	-05	-58	-03	-03	03	34
72.	-14	-03	-58	-02	14	-07	38

*Decimal points were omitted.

Table II (Continued)

Subtest Item Number	Subtest						
	I	II	III	IV	V	VI	/ h^2
			Production Emphasis				
6.	23*	-10	-26	39	14	03	30
8.	44	12	10	51	03	12	49
20.	33	21	14	49	-16	-04	44
29.	25	29	27	37	22	00	40
34.	28	29	07	36	-22	-18	38
44.	-03	09	14	49	-01	10	28
54.	35	25	07	39	-32	-03	44
61.	16	-04	-07	58	08	08	38
69.	-01	11	10	58	17	-05	39
76.	05	05	-09	54	-05	-21	35
			Student Involvement				
13.	22	-12	-01	-10	50	-09	32
40.	15	16	-07	20	59	13	46
45.	07	10	-16	28	35	28	32
65.	00	19	-25	-22	31	11	26
			Detachment				
58.	02	-26	09	-07	22	-41	30
63.	-10	-20	-11	-03	-11	-53	35
70.	-06	-06	02	-04	-30	-51	36
75.	-06	-07	-18	13	03	-41	22
			Consideration (Not used)				
3.	59	14	02	-01	10	11	39
11.	51	12	10	06	28	-12	39
15.	71	22	13	-06	-04	-02	58
18.	69	24	18	23	13	03	64
19.	-62	04	-21	-16	-11	-14	48
21.	79	14	14	06	10	-02	67
23.	-57	-11	-20	00	01	-19	42
25.	-51	-00	-18	-24	01	-28	42
41.	56	32	17	36	04	04	58
47.	-59	-05	-25	-04	03	-16	44
53.	68	23	12	31	-02	02	63
57.	-56	02	-18	03	-06	-15	37
66.	75	22	07	14	-05	-04	63
73.	37	21	-09	-16	19	-26	32
74.	69	26	11	18	03	-10	60
78.	-58	14	-21	01	00	-12	41

*Decimal points were omitted.

Table II (Continued)

Subtest Item Number	Subtest						
	I	II	III	IV	V	VI	h^2
			Intimacy (Not used)				
27.	25*	26	28	18	28	-02	32
37.	-17	-33	-02	03	-07	-28	22
			Production Emphasis (Not used)				
68.	40	40	-11	41	-08	06	50
79.	-13	31	22	22	-04	-25	28
			Not Used				
1.	17	22	03	-21	-27	03	19
2.	-48	-04	-48	06	-07	-04	47
12.	-31	18	-19	-09	-01	-05	18
24.	00	24	-16	-34	32	04	30
28.	48	32	26	12	24	-08	48
55.	-20	20	-19	00	-37	-16	28
64.	-04	-00	-42	-41	11	-23	41
67.	17	28	-13	18	18	05	19
77.	-58	-09	-30	13	-14	-13	49
80.	33	42	29	37	15	-08	53
Eigenvalues	19.98	3.73	3.17	3.03	2.11	1.68	
Cumulative percentage of Eigenvalues	25	30	34	37	40	42	

*Decimal points were omitted.

The second dimension identified is congruent with the factor Halpin defined, namely, intimacy. He defines intimacy as referring to the teachers' enjoyment of friendly social relations with one another. He further believes that this dimensions describes a social-needs satisfaction not necessarily associated with past accomplishments.

The third dimension is disengagement, which is also in agreement with Halpin's finding in the elementary school. Disengagement is associated with factionalization within the faculty.

The fourth dimension appears to be production emphasis. The departmental chairman exhibits production emphasis with behavior that places the department's welfare above the welfare of the individual faculty members. This tends to agree with Halpin's definition of production emphasis to which he refers as that behavior of the principal which is characterized by close supervision of the staff.

The fifth dimension may be characterized by students' influence over the group. It involves the recognition of students as a group, the behavior they exhibit in trying to influence the faculty and the way in which they respond to ideas and events from the department.

The sixth dimension appears to relate with Halpin's aloofness, which is characterized by formality and impersonal behavior. In the present investigation, the dimension, identified as detachment, is defined in terms of group behavior. The original investigation found this to be a leader-related dimension. The inclusion of both students and faculty provides a rationale for seeing both segments as part of the total environment.

Validation of the Instrument

Prior to analysis the rationale for the validation of this instrument was to identify items according to the two-dimensional theoretical paradigm and then to compare the results of the item-factor analysis against the paradigm. Secondly, a comparison was completed of the varimax rotational solution from this investigation with the subtest described in the elementary school OCDQ. Finally, a cross-validation of the data-set was obtained by randomly dividing the respondents into two halves and obtaining factor analyses of those halves comparing the factor patterns.

Each of the 625 original items was assigned to cells in the paradigm. As previously mentioned, the ninety items retained for the research instrument were selected on the basis of the pilot investigation factor analyses and their position in the paradigm. The investigator made certain that each cell of the paradigm was adequately covered by the items retained for the research instrument. The item-factor analysis obtained after the results of the investigation were collected provided the investigator with the opportunity to dialectically check the items. This analysis showed that the factorial solution obtained by categorizing the behaviors described by the ninety items was actually in accord with the way that the domains were mapped. With minor exceptions in each of the identified subtests, items loaded on their predicted domains. Ten items of the original eighty were not used because they tended to either load on more than one factor or did not load on any of the identified domains.

The consolidation of factors in this investigation with those of Halpin's original study was not surprising. This outcome was hypothesized. Two leader dimensions, namely, production emphasis and consideration, were obtained. Disengagement and intimacy were identified as faculty dimensions. One of the two remaining dimensions, that of detachment, seems to be related to the same type of factor, namely aloofness, that was described as a leader domain in the original instrument. The inclusion of the student involvement dimension may be defended from an empirical standpoint.

It is plausible that other factors identified in the original instrument may pervade the environment of academic departments. They probably were not identified because the items in the instrument did not account for enough of domain variance or there were insufficient items to provide a reliable measure of those domains.

The results of the cross-validational investigation found in Table III depicts reasonably stable paired factor loadings.

This analysis leads the investigator to conclude that the organizational climate of academic departments as defined in this investigation is depicted by the six dimensions obtained through the item-factor analysis.

The Analysis at Subtest Level

With the acceptance of the six-factor solution at item level of the organizational climate which envelopes departments, the subtest scores were determined. This was accomplished by summing each individual respondent's scores, subtest by subtest, and dividing them by

Table III

COMPARISON OF TWO ITEM FACTOR MATRICES OF RANDOMLY SELECTED HALVES OF RESPONDENTS FOR THE 50 INCLUDED ITEMS OF THE OCDQ-HE RESEARCH FORM (N = 575)

Subtest Item Number	Subtest I	 II	 III	 IV	 V	 VI	 / h^2
				Consideration			
7.	62/64*	-06/-02	-02/-08	13/13	-06/-15	02/04	74/65
17.	76/79	11/13	07/07	-08/03	06/09	-15/07	69/69
35.	62/71	10/01	04/05	-03/-08	-01/00	-20/-02	62/63
38.	71/68	-24/-11	-19/-15	-05/-25	-01/02	-19/-13	69/63
39.	80/76	-14/-04	-09/-20	13/-10	03/10	-11/-03	78/73
43.	70/71	-16/-09	-18/-10	19/04	-07/-13	01/-05	72/65
48.	57/61	-05/-18	-04/-11	14/07	15/13	-12/-04	60/64
49.	60/56	02/20	-21/-23	00/-09	-30/-21	12/-04	65/62
50.	78/76	-10/-05	-12/-22	11/-10	-15/-15	-00/-12	77/76
52.	77/80	-18/-12	-10/-11	23/-04	00/05	-10/-02	75/79
59.	61/69	08/-18	-09/-20	21/14	05/-06	11/-07	64/69
60.	68/73	-10/02	-26/-14	05/-19	-09/-18	01/-23	76/83
				Intimacy			
4.	48/51	27/42	-05/16	-37/-07	-02/05	07/01	61/62
14.	37/39	30/45	-16/05	-22/25	-08/-04	18/-22	71/61
16.	33/37	29/44	-33/-12	-30/04	-12/-06	06/-12	64/66
26.	36/28	41/57	-11/11	-26/15	-07/02	18/-17	62/63
30.	60/59	30/27	-04/14	-36/05	02/07	01/-13	69/70
36.	40/34	39/29	-11/-11	-34/31	-02/08	04/-08	62/68
56.	44/38	34/50	-24/-03	-17/22	-04/06	32/-27	64/71
62.	45/50	45/34	-08/-02	-15/17	-19/02	17/-15	69/65
71.	54/64	34/25	17/28	-19/01	-12/07	-13/-03	64/69
				Disengagement			
5.	-28/-35	13/-05	-34/-31	32/31	00/-07	04/-09	69/69
9.	-33/-42	25/-04	-17/-12	45/44	16/-06	13/-15	67/67
10.	-36/-44	18/-08	-13/-06	41/34	13/04	15/-07	76/64
22.	-27/-36	27/08	-26/-19	-06/28	02/15	-09/11	70/56
31.	-45/-55	14/-03	-34/-23	13/05	-13/-09	-11/-09	63/64
32.	45/53	27/03	28/26	-07/-06	23/15	-23/-08	61/63
33.	-28/-49	03/06	-34/-23	-03/09	-15/-07	-25/-10	53/63
42.	-52/-54	11/-08	-41/-32	26/33	08/-05	-04/-12	72/68
46.	-35/-15	02/13	-38/-15	17/14	-02/01	13/12	62/74
51.	-24/-30	07/-02	-34/-45	31/29	04/-05	12/-15	69/70
72.	-33/-29	19/-19	-53/-26	20/28	07/03	09/-34	65/69

*Decimal points were omitted.

Table III (Continued)

Subtest Item Number	Subtest						
	I	II	III	IV	V	VI	/ h²
	Production Emphasis						
6.	22/13*	10/-35	-08/-09	45/38	15/13	05/-11	71/60
8.	54/61	13/-22	19/09	28/32	12/00	14/07	63/72
20.	48/53	31/-17	18/27	24/19	-11/-25	-05/17	70/66
29.	54/50	30/-10	06/28	-10/13	15/14	-04/11	64/69
34.	35/48	29/01	19/08	15/26	-27/-40	-17/11	63/71
44.	10/27	32/-16	29/35	09/33	19/-09	-11/15	65/70
54.	42/51	32/-09	28/-03	18/20	-28/-44	07/30	73/72
61.	28/22	23/-28	14/16	46/42	23/00	02/21	63/67
69.	23/24	41/-15	22/41	23/37	24/19	-02/-22	68/62
76.	10/20	43/-26	19/12	37/38	-06/-11	-03/-09	59/61
	Student Involvement						
13.	24/24	02/-02	-28/-34	-17/-04	23/29	-37/20	65/72
40.	20/35	25/-04	-22/21	-01/25	50/38	-34/16	64/68
45.	14/20	25/-15	-17/-12	05/34	53/15	06/23	72/65
65.	-04/-02	06/33	-47/-31	-05/03	22/18	03/47	74/71
	Detachment						
58.	-10/-06	-13/-24	-02/04	13/-30	01/14	-41/-23	76/64
63.	-25/-26	03/-07	-01/05	38/-20	-37/-02	-24/-07	61/60
70.	-15/-13	-01/04	11/18	19/-17	-51/-18	-12/-39	59/67
75.	-23/-04	21/-29	-05/-07	18/11	-24/03	-20/-33	83/61
	Consideration (Not used)						
3.	52/58	-22/-02	-27/-18	08/-05	11/-08	11/12	60/63
11.	48/57	-12/-09	-12/-23	09/-02	-04/27	-12/05	64/61
15.	71/67	-19/-01	-22/-17	01/-20	-14/-19	-07/-21	78/77
18.	77/81	-05/-09	-03/-14	05/08	05/-05	-13/09	70/75
19.	-59/-64	29/23	-03/-09	-19/09	-07/-18	-17/-07	59/71
21.	75/78	-21/-10	-16/-21	13/-12	-04/-04	-21/-05	77/72
23.	-54/-62	28/06	-03/13	09/05	05/00	-20/-03	74/63
25.	-56/-55	28/17	-13/-08	-11/-16	-11/-03	-29/00	61/55
41.	71/76	14/04	01/10	16/16	04/-06	-01/04	67/70
47.	-57/-63	29/06	-07/08	-03/16	-01/11	-05/05	68/71
53.	75/77	03/-12	-03/-03	22/08	-01/-17	02/12	70/74
57.	51/-52	37/13	01/16	-01/15	-03/-07	-09/-01	60/64
66.	72/76	-11/-08	-12/-18	19/01	-17/-14	05/-06	69/70
73.	28/35	-00/-01	-46/-25	-03/-10	-22/08	-13/10	65/63
74.	74/75	03/-09	-11/-17	16/-01	-17/-06	-03/06	71/73
78.	-52/-46	42/24	00/03	-08/26	-11/09	01/17	67/55

*Decimal points were omitted.

Table III (Continued)

Subtest Item Number	Subtest I	II	III	IV	V	VI	h^2
			Intimacy (Not used)				
27.	46/47*	15/06	-00/25	-13/01	13/36	-18/-18	68/59
37.	-26/-31	00/-24	15/09	29/-22	-12/-13	-41/27	57/65
			Production Emphasis (Not used)				
68.	53/55	30/06	-07/-01	20/45	-05/-15	26/-05	70/64
79.	11/14	44/28	21/33	00/03	-14/-03	-07/16	63/67
			Not Used				
1.	13/17	-12/23	-11/-04	-17/-06	-31/-31	06/07	70/75
2.	-51/-60	36/-04	-19/-06	14/32	-06/-04	11/-09	64/65
12.	-29/-26	24/21	-21/-01	-23/19	00/-18	-24/08	64/67
24.	-12/09	-05/41	-43/-33	-26/02	15/22	-13/31	75/72
28.	62/68	08/-02	-15/09	-15/-04	03/16	-14/-09	59/59
55.	-23/-17	30/21	-04/-00	03/12	-37/-44	-02/14	75/68
64.	-29/-28	-08/15	-56/-45	04/-12	-14/-04	-06/-07	66/66
67.	31/23	19/08	-22/02	02/38	02/26	03/-07	70/73
77.	-57/-63	39/00	05/11	18/23	-03/-11	01/-04	70/61
80.	60/65	40/05	12/18	-07/12	03/08	-08/-00	69/68
Eigen-values	18.96/ 21.09	4.48/ 3.13	3.68/ 2.89	3.30/ 3.45	2.37/ 2.01	1.89/ 1.93	
Cumulative Percentages of Eigen-values	24/26	29/30	34/32	38/36	41/41	43/43	

*Decimal points were omitted.

the number of corresponding items in that subtest. This provided six subtest scores for each of the 575 respondents. As was done at the item level, the six subtests were factor analyzed and a six-factor solution obtained. The intercorrelations among the subtests are presented in Table IV.

Examination of the factor loadings of the unrotated matrix found in Table V reveals a pattern which indicates that there is one factor that tends to account for a majority of the variance within the matrix, and that a three-factor solution provides a logical way to examine the subtests.

As a result, a three-factor solution was accepted for the analysis at the departmental level. It provides an efficient way of looking at the organizational climate in departments, as it appears to provide an understanding of a general factor which pervades it.

An examination of Table VI shows how the subtest loadings fall on the three factors.

Four of the six subtests load heavily on the first factor. Consideration, intimacy, and production emphasis all load positively on the factor and disengagement loads negatively. Examination of Halpin and Croft's investigation reveals that these same factors were important in the three-factor varimax rotational solution which they obtained. The subtest scores in the original study on intimacy and consideration loaded both on the factor which was named social need. The other two subtests which loaded on Factor I, loaded on the other two factors in the original study. Disengagement loaded on esprit, and production emphasis loaded on social control.

Table IV

CORRELATIONS BETWEEN SIX SUBTEST SCORES OCDQ-HE RESEARCH FORM 50 ITEMS (N = 575)

Subtest	I	II	III	IV	V	VI
Consideration	1.00	56*	-45	52	34	-18
Intimacy		1.00	-34	38	19	-24
Disengagement			1.00	-25	05	16
Production Emphasis				1.00	03	-10
Student Involvement					1.00	01
Detachment						1.00

*Decimal points were omitted.

Table V

UNROTATED FACTOR MATRIX FOR SIX SUBTESTS, RESEARCH FORM, 50 ITEMS (N = 575)

Subtest	I	II	III	IV	V	VI	/ h^2
Consideration	87*	18	08	-04	-11	-43	1.00
Intimacy	78	03	-08	01	61	11	1.00
Disengagement	-61	40	-19	60	19	-17	1.00
Production Emphasis	67	-07	37	56	-23	19	1.00
Student Involvement	30	86	-29	-15	-18	19	1.00
Detachment	-36	41	80	-17	16	-01	1.00
Eigenvalues	2.4	1.1	.9	.7	.5	.3	
Cumulative Percentage of Eigenvalues	40	59	74	86	95	1.00	

*Decimal points were omitted.

Table VI

THREE-FACTOR VARIMAX ROTATIONAL SOLUTION FOR TOTAL FACULTY SAMPLE (N = 575)

Subtest	Factors			
	I	II	III	h^2
Consideration	.81	.36	-.11	.80
Intimacy	.68	.26	-.28	.61
Disengagement	-.69	.26	.16	.57
Production Emphasis	.76	-.01	.11	.59
Student Involvement	.06	.95	.01	.91
Detachment	-.09	.01	.97	.95
Eigenvalue	2.41	1.10	.92	
Percentage Variance	.40	.19	.15	$\Sigma = 74$

An alternative way to analyze Factor I is by comparing it with three factors identified in the FIRO tests.[5] They are affection, inclusion, and control which are defined as follows:

> Affection is defined as behavior directed toward the satisfaction of the interpersonal need for affection, and refers to behavior characterized by the following terms: "like," "personal," "friendship," and contrariwise, by such terms as "dislike," "cool," and "emotionally distant."
>
> Control is defined as behavior directed toward the satisfaction of the interpersonal need for control, and refers to behavior that connotes "dominance," "authority," "rules," and contrariwise, by such terms as "rebellion," "resistance," and "submission."
>
> Inclusion is defined as behavior directed toward the satisfaction of the interpersonal need for inclusion, and refers to behavior that connotes "belonging," "communication," "togetherness," and contrariwise, by behavior described as "isolated," "lonely," "ignored" and "excluded."[6]

Factor I appears to include each of the three factors Schutz identified. Affection is easily identified within intimacy, noting that that is an interpersonal need, and is characterized as the close relationships of peers. The control factor can be related to the dimension of production emphasis. It plays an important role in providing direction for individuals within the group by providing them with the boundaries within which to operate. Finally, inclusion can be related to consideration. It is the behavior of the leader which provides a means for satisfaction of individuals within the group by belonging to that group and being involved in these processes of the organization.[7]

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[5] William C. Schutz, FIRO: A Three-Dimensional Theory of Interpersonal Behavior (New York: Rinehard, 1958).

[6] Halpin and Croft, op. cit., p. 46.

The second factor is identified by the subtest on student involvement, and appears to be a domain that was not identified or, more likely, does not influence organizational behavior in the elementary school.

The third factor, which at this point is identified as detachment, is solely determined by the sixth subtest. It appears to involve the inclusion of faculty as well as students within the department's activities.

Analysis of the six subtests did not reveal a neat, clean division among the factors which make up the organizational climate of departments as described in the elementary school investigation, though indeed the same type of factors have been identified. The three original measures identified by Halpin were social needs as an individual factor; esprit as a group factor; and social control as a leader factor.[8] Suggesting a like structure for the climate of academic departments can be adequately supported. Comparing the result of the original investigation with the identified saturations in the subtest scores reveals a comparable climate structure. The social needs factor, in the original investigation, was saturated by intimacy and consideration domains which have been found in the present investigation. The social control element included production emphasis which has been shown to be a factor in the departmental environment. The remaining factor of the original study, esprit, can be identified through the negative loading saturation of the disengagement subtest.

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[7] Ibid., p. 47.

[8] Ibid., p. 44.

It appears that the faculty members within the sample do not perceive the climate in which they exist to be as clearly defined as do those within the elementary school. This is supported by the fact that Factor I is made up of subtests which tend to have a different genesis. The concerns of the faculty appear to be self-centered. They perceive the environment from their viewpoint more than they do from the viewpoint of the department chairman or from their colleagues. Faculty members appear to develop personal relationships with students, or, at the least, are aware of the influence of students within the climate of the department.

Reliability Estimates of the Subtests

Estimates of the internal consistency and reliability of the six subtests were obtained. Three techniques are used: split-half coefficients of reliability corrected by the Spearman-Brown formula, correlation between the scores of randomly selected respondents in each department, and the communality estimates for the three-factor rotational solution.

It was stated in the limitations of this investigation[9] that time constraints prevented the investigator from obtaining optimal levels of internal consistency for some of the subtests. Strategically developing high levels of internal consistency seemed less important than identifying a set of items which would succinctly and usefully depict the organizational climate of academic departments. It is recommended that the subtests that do not have a high coefficient of internal consistency be lengthened. Table VII points out that the last two subtests, which contain four items each, need to be lengthened. It is possible that there are domains that have not been identified in the factor solutions because of the lack of internal consistency. In a number of instances, there were one and two item clusters that could have been used to identify other domains. Inadequate numbers of items for those potential domains precluded their use in the instrument as it is now constituted.

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[9] See page 4.

More important to this investigation are the estimates of the equivalence as printed in Table VII. They are correlations of two groups of respondents in each department, and communality estimates of the three-factor solution. These estimates of equivalence of the subtest scores, with the exception of the .26 coefficient correlation for detachment, appear to be adequate. The .95 communality estimate for the same subtest in a three-factor solution provides supporting data for the inclusion of that subtest at least at this point in the development of the instrument. Halpin stated, "A test may provide low reliability; yet if all of its non-error variance is shared in common with the variance of other measures, the correlations between the tests and other external measures can nevertheless be substantial, and hence, in a sense, the test can possess high predictive validity."[10]

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[10] Ibid., p. 49.

Table VII

ESTIMATES OF INTERNAL CONSISTENCY AND OF EQUIVALENCE FOR THE SIX OCDQ SUBTESTS

Subtests	Split-half coefficient of reliability corrected by the Spearman-Brown Formula (N = 575)	Correlation between scores of the odd numbered and the even numbered respondents in each department (N = 47)	Communality estimate for three-factor solution (N = 575)
1. Consideration	.92	.65	.80
2. Intimacy	.83	.71	.61
3. Disengagement	.70	.67	.57
4. Production Emphasis	.74	.65	.59
5. Student Involvement	.08	.64	.91
6. Detachment	.37	.26	.95

The Analysis of Departmental Profile Scores

After the analysis at subtest level, the next procedure was the analysis of the departments by the subtest scores. The scores on the six subtests allow the identification of the saturations of domains in each of the organizational climates. Forty-seven departments were analyzed by applying the Q-technique of factor analysis to the double standardized profile scores. The double standardization technique allowed for comparison to be made between the subtest scores of the various departments.

Following the design of the original study, the department profile scores were developed. This was accomplished by standardizing the subtest scores within each subtest and then standardizing across the departments. Secondly, the double standardized scores were then factor analyzed and the factor loadings on the three factor solution were used to delineate six sets of department profiles. Finally, the six climates were identified and compared.

Factor Analysis and Declination of the Sets of Department-Profiles

To categorize similar profiles into groups, the investigator examined the factor matrix and found that each department secured high positive or high negative loadings on one of the three profile factors. The profiles were separated into six sets, two sets for each one of the three factors; one set obtained a high positive factor loading on the factor; and the other, a high negative loading on the same factor. The departments' profiles categorized in this manner are presented in Table VIII.

Table VIII

THE SAMPLE OF 47 DEPARTMENT PROFILES GROUPED IN RESPECT TO FACTOR LOADING

Department Number	Disengagement	Intimacy	Production Emphasis	Consideration	Student Involvement	Detachment	Unrotated Factor Loading			h^2
							I	II	III	
					Open					
@* 19	40+	58	51	63	51	37	97+	02	-03	95+
* 38	40	63	50	58	51	37	95	15	-23	98
* 16	41	56	58	62	47	37	92	-32	-08	95
* 30	40	65	46	57	52	40	90	36	-21	98
* 41	41	67	49	56	46	42	88	15	-34	92
* 27	38	65	48	53	55	41	85	31	-22	86
46	39	56	41	64	55	45	80	49	32	99
24	41	61	61	54	41	41	78	-47	-34	95
28	46	61	37	62	50	44	69	63	04	88
26	50	60	57	57	39	37	69	-34	-55	89
43	33	55	46	61	48	56	66	18	56	79
32	39	53	38	64	55	51	62	58	52	98
18	35	63	51	46	59	46	57	23	-10	39
Mean	40	60	49	58	50	43				
					Controlled					
@* 25	50	51	68	50	37	44	23	-90	-35	98
45	40	46	62	63	42	47	60	-68	37	96
2	43	51	64	60	42	41	68	-71	-03	97
8	40	50	62	36	54	57	-21	-43	07	24
Mean	43	50	64	53	44	47				

*Departments selected to determine prototypic means.

@Ideal sample department for the specified sample.

+Decimal points are omitted.

Table VIII (Continued)

Department Number	Disengagement	Intimacy	Production Emphasis	Consideration	Student Involvement	Detachment	Unrotated Factor Loading			h^2
							I	II	III	
				Autonomous						
@* 15	45+	33	51	59	52	60	-19+	-22	94	96+
* 7	46	32	52	58	60	52	-10	-15	78	63
* 40	35	45	55	61	45	59	38	-37	78	89
* 37	32	46	56	55	50	61	29	-29	76	75
22	42	33	61	55	54	55	-13	-58	74	90
1	35	52	43	64	54	53	65	35	67	99
47	49	32	55	59	59	46	-05	-22	62	43
29	38	53	48	59	40	62	37	-08	54	44
Mean	40	41	53	59	52	56				
				Paternal						
@* 17	56	58	59	49	43	34	35	-37	-81	93
35	58	55	60	34	42	51	-44	-44	-69	87
31	57	53	59	54	47	31	38	-36	-61	65
14	65	45	47	51	57	36	-19	19	-40	23
Mean	59	53	56	47	47	48				
				Familiar						
@* 13	56	54	32	56	57	45	-12	90	-08	82
12	48	58	33	61	52	48	44	82	11	87
39	50	60	37	39	59	55	-26	78	-20	72
42	60	43	33	53	56	55	-48	70	-29	81
4	39	51	43	56	66	44	47	52	36	63
Mean	51	53	36	53	58	49				

*Departments selected to determine prototypic means.

@Idealsample department for the specified sample.

+Decimal points are omitted.

Table VIII (Continued)

Department Number	Disengagement	Intimacy	Production Emphasis	Consideration	Student Involvement	Detachment	Unrotated Factor Loading			h^2
							I	II	III	
					Closed					
@* 21	63+	39	49	40	50	60	-99+	-03	07	99+
* 10	63	43	45	38	51	61	-98	18	-05	99
* 5	63	46	42	39	48	62	-90	29	-10	91
* 3	59	34	55	44	48	60	-87	-41	26	98
* 9	64	38	57	39	50	51	-85	-37	-22	90
20	65	36	53	45	46	55	-84	-34	03	83
* 33	55	40	50	43	44	67	-81	-20	34	82
6	60	49	39	37	56	59	-80	56	-10	97
44	58	52	45	32	52	60	-78	30	-30	80
36	50	34	52	44	55	64	-72	-19	63	95
34	60	52	36	39	53	59	-70	65	-17	95
11	64	40	40	47	60	49	-64	47	02	64
23	53	55	52	31	49	60	-60	-01	-36	49
Mean	60	43	47	40	51	59				
					Eigenvalues		20.02	9.53	8.86	
				Percentage Variance			43	20	20	E=82

*Departments selected to determine prototypic means.

@Ideal sample department for the specified sample.

+Decimal points are omitted.

Specification of Six Mean Profiles

Following the original study, each of the sets of department profiles were identified by mean-profile scores. The mean-profile scores of the selected departments are used to describe the organizational climates and to provide models for comparing the other sample departments. These scores, presented in Table IX, represent an estimate of the "ideal" profile for each set. The scores found in this table were calculated from the selected departments identified by the asterisks in Table VIII.

Analysis of the prototypic mean scores of consideration, intimacy, disengagement, and production emphasis subtests which loaded heavily on Factor I confirms its importance. The climates were ranked by adding the deviations[11] of each of the scores for the standardized mean (M = 50) of the selected departmental groupings. The rankings are presented in Table IX. The rationale for ranking the climate according to the first factor is based upon the high eigenvalues exhibited by the factor, and the questionable internal consistency and reliability of Factors II and III.

Each group of departments may be viewed as descriptive of six different organizational climates. The consolidation of the three general factors found in Halpin's original investigation into Factor I provides rationale to use the original climates as models in the analysis.

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[11] The ranking was determined by summing the deviation in standard score units from the mean of each subtest score. A positive score was used for derivation depicting "effective" behavior, negative scores for "ineffective" behavior.

Table IX

IDENTIFIED PROTOTYPIC SAMPLE DEPARTMENT PROFILES FOR SIX ORGANIZATIONAL CLIMATES RANKED WITH RESPECT TO FACTOR I

	Factor I				II	III	
Climates	Disengagement	Intimacy	Production Emphasis	Consideration	Student Involvement	Detachment	Ranking
Open	40	62	50	58	50	39	30
Controlled	50	51	68	50	37	44	19
Autonomous	40	39	52	59	52	58	10
Paternal	56	58	59	49	43	34	10
Familiar	56	54	32	55	57	45	-15
Closed	62	39	50	41	48	59	-36

The rankings of the climates by the four subtest scores loading on Factor I revealed that disengagement scores tended to align themselves from low to high through the six departmental group scores. In the original study, it was found that disengagement had a high negative correlation with the subtest scores on esprit. The scores received by schools on esprit were judged to be the best single indicator of morale. Further, esprit was said to indicate an effective balance between task-accomplishment and social-needs satisfaction.[12]

The order in which the climates are ranked provides a crude way of looking at the relative openness or closedness of organizational climate. The open-closed continuum was used in the elementary school investigation. The analysis of the subtest scores loading of Factor I in the present investigation indicates the same type of analysis is appropriate. The open climates found towards the top of the ranking scale in Table VIII have low disengagement, high intimacy, high consideration, and low detachment, **whereas** the close climates towards the bottom of the table have high disengagement, low intimacy, low consideration, and high detachment. The open climate is open in that the behavior of the group is genuine or authentic. There is a balance between social control behavior and behavior which satisfies social needs and a further balance between the initiation of leadership by the chairman and such acts by the faculty.[13]

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[12] Halpin and Croft, *op. cit.*, pp. 59-60.

[13] *Ibid.*, pp. 74-75.

Factor II identifies a number of departments which appear to be distinguished either by department chairman control or by its absence. This is identifiable through a high or low production emphasis score in the second and fifth climates, respectively. The high-production emphasis score on the second factor tends to identify the same type of environment as was defined in the controlled environment of the original investigation. The controlled environment has low student involvement. The fifth ranked climate is characterized by a very low-production emphasis and high student involvement as well as positive scores in intimacy and consideration. It has the same pattern of scores that were found in Halpin's familiar climate. This factor was found in the original investigation and was related primarily to the style of organizational behavior identified as social control as opposed to social-needs satisfaction.[14]

Factor III provides an interesting contrast in examining climates three and four. Climate three is described by high levels of intimacy and disengagement. It may be categorized as it was in the original investigation, an autonomous climate. The fourth climate is described in terms of high levels of intimacy and production emphasis along with a low level of aloofness and student involvement. It appears to be the paternal type of climate which was described in the original study.

It should be strongly emphasized at this point that the analysis of the three factors and the six inferred climates is tentative. The first factor, depicting climate according to relative openness or closedness, appears to be relatively stable and reliable. The relative ranking of all six inferred climates was based on the subtest scores that loaded on Factor I. Factors II and III, those identified in terms of the autonomous-paternal, and controlled-familiar climates, should be viewed with less credence. In both cases, the subtest scores that make up the factors, that of student involvement for Factor II and detachment. for Factor III, appear to be somewhat unreliable.

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[14] Ibid., p. 75.

Drawing conclusions about the effectiveness or ineffectiveness of departments is not part of this investigation. Conclusions about organizational effectiveness based on the foregoing discussion would be inappropriate.

Classification of Organization Climates of Departments

Now that the Organizational Climate Description Questionnaire-Higher Education (OCDQ-HE) has been constructed and the tentative organizational climates have been described, departments may be compared against the subtest domain descriptions and factor loadings of each of the climates.

The loadings for the six prototypic climates are indicated in Table X. The positive and negative signs indicate approximately .5 standard deviations. ++ and -- are indicative of scores approximately ±1 standard deviation away from the mean.

Each school within the sample may be compared against the ideal climates. Obviously, departments will not approach the factor loadings of the ideal climate, but they can be analyzed by comparing obtained

Table X

SUBTEST SCORES AND FACTOR LOADINGS FOR EACH "IDEAL" CLIMATE

Climate	Disengagement	Intimacy	Production Emphasis	Consideration	Student Involvement	Detachment	Factor I	Factor II	Factor III
Open	--	++		++		-	1.00	00	00
Controlled	-		++		-		00	-1.00	00
Autonomous	--	--		++		+	00	00	1.00
Paternal	++		+			--	00	00	-1.00
Familiar			--		+		00	1.00	00
Closed	++	-		--		++	-1.00	00	00

Key:
++ = 1.0 S.D.
+ = .5 S.D.
-- = -1.0 S.D.
- = -.5 S.D.

scores on the six subtests against the prototypic subtest scores. Climate subtest scores will provide data to estimate to what extent that department's climate is similar to the prototypic climates. Using the OCDQ-HE in its present form provides a way to describe organizational climate according to whether it is relatively open or closed.

Summary

The results are presented and discussed for the pilot and for the main investigations. Completion of five 150-item pilot questionnaires provided empirical data helpful in identifying items to be included in the main research instrument. A research instrument containing ninety items was constructed.

Data collected from the completion of the questionnaire was obtained from 82% of the faculty members in 52 academic departments. A principle-component factor analysis identified six domains which pervaded the organizational climate of the academic departments sampled. Fifty of the original ninety items provided responses necessary to obtain subtest scores. The six subtests identified are consideration, intimacy, disengagement, production emphasis, student involvement, and detachment.

Validation of the instrument was accomplished through use of construct validity, and cross-validational techniques.

Factor analysis of the subtest scores allowed for a three-factor solution to be accepted for the analysis at the departmental level. Factor I includes the three factors identified in the original study: social needs, social control, and esprit. One alternative way to analyze is to compare Factor I with the three factors identified by Schutz's FIRO tests. They are affection, inclusion, and control. Factor I appears to be the one reliable and important factor of the original three.

The remaining two factors are identified as student involvement and detachment. Both of these subtests provide for smaller percentages of the variance in the factor matrix and appear to have questionable reliability.

To analyze the departments, double standardized subtest scores were calculated. This allowed for comparisons to be made between the subtest scores of the various departments. The double standardized department subtest scores were factor-analyzed and grouped according to factor loadings on the three-profile factor solution. As was done in the original investigation, mean-profile scores were identified for each of six departments grouped according to their factor loadings. The mean profile of scores of selected departments within each group were used to describe the organizational climates which provided models for the identified climate. Groups of departments were ranked according to the standardized scores which they achieved on the four subtests which loaded on Factor I. The first factor was identified as an open-closed climate continuum. The climates were ranked to provide a way to analyze their relative open-closed nature. Four other climates were identified through analysis of Factors II and III. In their relative order, the climates are identified as open, controlled, autonomous, paternal, familiar, and closed. The identification of these climates has been drawn from Halpin's original investigation.

The construction of the OCDQ-HE and the tentative organizational climates having been described, departments may be compared against the subtest descriptions and factor loadings of each of the climates.

CHAPTER V

SUMMARY AND CONCLUSIONS

Statement of Problem

This investigation was initiated to develop an instrument to assess organizational climate of academic departments in colleges and universities. The specific purposes were: (1) to construct an Organizational Climate Description Questionnaire-Higher Education (OCDQ-HE); and (2) to describe the various organizational climates which surround the academic departments used in the sample.

Two research hypotheses were examined:

(1) The Organizational Climate Description Questionnaire-Higher Education (OCDQ-HE) will be a valid instrument to assess organizational climate in academic departments.

(2) The subtests for the instrument will consolidate around the same dimensions found in the original study, but the factor loadings on those dimensions will be different.

Organizational Climate

Prior to the development of the instrument, it was necessary to establish an operational definition for the term organizational climate.

The literature written by a number of contemporary administrative theorists was reviewed. It was determined that organizational climate is described in social-environmental terms. By definition organizational climate is placed in the realm of interpersonal relations as depicted by the perceptions of the behavior of the individual members of the group. Important to the concept is the dependence of behavior on environment. Contemporary theorists agree that group effectiveness is directly related to the development of interpersonal relations within the group.

Organizational climate is a relatively enduring quality of the internal environment of an organization as experienced by its members, which influences their behavior and may be described in terms of the values of a particular set of characteristics of the organization. Climate is a less general, narrower concept than is environment.

This investigation is patterned after a study completed by Andrew Halpin and Don Croft in the early 1960s. The Organizational Climate Description Questionnaire was developed and used to assess seventy-one elementary schools throughout the United States. The development of the OCDQ provides an instrument which is useful in describing the climate which pervades elementary schools. It provides a basis from which further investigations of organizational climate in educational institutions may be launched.

Procedures

The investigation was initiated by the generation of an item bank. Halpin's original theoretical paradigm was used as the criterion for the selection of items to be included in five pilot questionnaires. The paradigm was developed from descriptions of organizational climate which appear throughout the literature on administrative theory. Items retained had to fit into appropriate cells within the paradigm; they also had to provide the potential for a reasonable amount of consensus within given academic departments and yet permit discrimination among departments.

Five parallel forms of a questionnaire, 150 items in length, were constructed from 375 items which remained after the categorization process was completed. These preliminary forms were administered to pilot samples of heterogeneous academic departments in three universities in Western Oregon. Five groups of seventy-five items were factor-analyzed to identify possible subtests and items which would be included therein. The orthogonal consensus of each item within departments was calculated and analyzed along with the differences among item mean scores of each department.

An analysis of the results of the pilot study allowed for the selection of ninety items to be included in the research form of the questionnaire. The research questionnaire was sent to the total eligible faculty of fifty-two randomly selected departments in twelve institutions in Oregon, Idaho, and Washington. Subject participation was solicited by on-campus visits and by mail. The respondent's anonymity was protected during the investigation by an elaborate coding procedure. No attempt was made to evaluate the effectiveness of either the administrators or the members of the various departments.

The total data-set was factor analyzed at item-respondent level by the principle components method; a varimax rotational solution was obtained. To develop subtests which measure the various domains, item scores were grouped using the rotated factor loadings. The subtest scores were factor analyzed and the resulting factor matrix obtained was used for a three-factor solution for the concept of organizational climate. To complete the study, forty-seven of the fifty-two academic departments were analyzed on the basis of their profile scores of the six subtests. Overall analysis of the climate was developed with respect to the first factor, namely, that of an open versus a closed climate; the results were used to analyze the various groups of departments to describe for each climate the behavior which is characterized by those departments and their faculty members.

Results

The research questionnaire was sent to 698 faculty members from the fifty-two departments who were eligible for the investigation. Five hundred seventy-five responses were received, a percentage rate of 82.1. Forty-seven departments were used for the departmental analysis. They provided the investigator with the information necessary to decide that five, six, seven, and eight-factor subtest solutions should be obtained. The six-factor solution provided the most useful structure. With this solution, a number of items were found to be inappropriate, and other items were removed because more than an adequate number loaded on Factor I. The final instrument accepted contains fifty items covering the six climate domains.

The validity of the use of this instrument in describing academic department organizational climate was established in three ways. (1) The results of the item-respondent factor analysis were empirically checked against the two-dimensional theoretical paradigm. (2) Cross-validation was obtained by comparing item-factor analysis of randomly selected halves of the respondent population. (3) Finally, the identification of the same types of domains found in the original investigation completed the validational procedures. The evidence obtained supports the first hypothesis that the OCDQ-HE is a valid instrument to assess organizational climates of academic departments.

Analysis of the domains identified by the six subtests revealed that four of the six closely resemble subtests established by the original OCDQ. The subtests are consideration, intimacy, disengagement, and production emphasis. A fifth subtest, identified as detachment of faculty and students, was also similar, though it was not descriptive of the leader as in the original study. A sixth subtest was identified as student involvement.

A principle-components factor analysis of the six subtest scores for the respondents revealed three factors which accounted for the majority of the variance within the matrix. As a result, a three-factor solution was accepted for the analysis at the departmental level. The first factor which had subtest scores of consideration, intimacy, production emphasis, and disengagement loading accounts for 40% of the variance with the method. The other two factors that were primarily identifiable through student involvement and detachment subtest scores had questionable internal consistency or reliability and provided for a small portion of the variance.

The second hypothesis stated for this investigation was substantiated. The dimensions identified by the subtests appeared to be the same as in the original study, but the factor loadings obtained are different. The three-factor solution revealed the same general factors that were found in the original study identified as social needs, esprit, and social control. The social needs and controls are directly identifiable within the subtests, and the factor of esprit is indirectly identifiable. The responses obtained in this investigation did not differentiate among the general factors in the same manner as responses had in the elementary school investigation. This possibly resulted as an effect of the present make-up of the instrument, the nature of departments in institutions of higher education, and the kinds of people that work in them.

Upon completion of the analysis at subtest level, subtest scores were determined for the forty-seven departments and were factor-analyzed with the use of the Q-technique. A three-factor varimax rotation was obtained and used to group the departments. Six groupings of departments were identified. They portrayed six different types of climates. Each of the sets of departments were identified through mean-profile scores. The subtest scores of the selected departments were used to describe the organizational climate, and provided models for comparing the other sample departments.

Groupings of the identified climates were ranked by using scores of the subtests which loaded on Factor I. The climates were analyzed in relation to this ranking, their relative factor loadings, and the double standardized subtest scores. The climates identified in this investigation are much like those found in the original investigation.

The ranking of the climates according to Factor I provides a convenient way of looking at departments from the relatively open through closed climates. The two largest groupings of departments consolidated around Factor I. Departments with positive factor loadings were identified as having an open climate and those with negative factor loadings as having a closed climate. The department groups with the next most open and closed climates are identifiable as controlled and familiar climates. They loaded negatively and positively, respectively, on Factor II. And the third and fourth climates relative to the open-closed continuum loaded on Factor III positively and negatively. They are identified as autonomous and paternal climates.

The identification and analysis of the last four climates must be tempered by the obvious fact that they were identified by two subtests, specifically student involvement and detachment, whose internal consistency or reliability is questionable. The major findings of this investigation have to be limited to the main identified climate continuum, that of the open climate and the closed climate.

Conclusions and Implications

The Organizational Climate Description Questionnaire--Higher Education (OCDQ-HE) has been developed which appears to portray the organizational climate of academic departments in colleges and universities. In its development, the two questions that were hypothesized were found to be valid.

(1) The OCDQ-HE is a satisfactory instrument to assess the organizational climate of academic departments. This has been supported through the validation of techniques that have been described in the analysis of data. The replication of the same basic design as used in the elementary school investigation in 1960s, and the identification of the same types of domains in this investigation provide additional credence to Halpin's description of the nature of organizational climate in educational organizations.

(2) This investigation showed the consolidation in higher education of the same factors found in the original study. Four of the subtest dimensions found in this study were similar to those found in the elementary school study.

Human beings, as members of groups, interact in the same way, regardless of their individual characteristics or the pressures exerted upon them. It was predictable that the behavioral domains identified were the same, and that they would have different factor loadings. This investigation provides adequate data to accept the second hypothesis.

The analysis of the data obtained from this study provides the investigator the opportunity to identify six types of organizational climates which make good sense. The actual identifiable boundaries and characteristics of the various climates within higher education are in question. With the exception of the dimension of open versus closed climates, little can be projected because of the lack of reliable subtests for the other two factors.

Clearly, the OCDQ-HE is still in a rudimentary form. There possibly are additional domains that have not been identified. At least two of the subtests do not contain enough items to provide as dependable measures as might be wished for. Because of these limitations, a number of recommendations for further study are included.

The OCDQ-HE may be used to describe the identified organizational climate domains which surround academic departments and to compare subtest score patterns of a department with those found for each climate in this investigation. The instrument and a description of the scoring procedures are found in Appendix A. Inferences may not be made about described departmental climate domains beyond the population of departments used to obtain the sample in this investigation. Users are further cautioned that the double standardization procedure used in the Q-technique analysis does not allow for direct comparison of standardized scores obtained from their use of the instrument.

Suggestions for Further Study

During the conduct of this investigation, attention has been called to several problems related to the development of the OCDQ-HE. These, and other suggestions, are presented for further study and investigation.

(1) It is recommended that the OCDQ-HE as it is presently constituted be administered to a broad sample of faculty members in academic departments. The present instrument of fifty items has been reduced in length from the ninety-item research form that was given to the main sample. There is a concern that the test length and relative positioning of items in the final instrument will have an effect upon the results. This interaction of item placement and test length needs

to be investigated.

(2) It was noted in the discussion that possibly there are additional domains within the environment of departments in higher education that were not identified because of the lack of items, and further, that additional items need to be established for two of the six subtests. The inclusion of additional items within those potential domains might lead to further fruitful research. The identification of the additional domains and specification of the domains of student involvement and detachment could provide important information about the nature of the organizational climates.

(3) The obvious end result of the construction of an instrument like the OCDQ-HE is to develop external criteria relating to the effectiveness of organizational units such as academic departments. The identification of characteristics found in effective organizations and their relations to behavioral-type instruments like the OCDQ-HE will provide invaluable information. It is suggested that the OCDQ-HE be used in an investigation in the development of such norms.

APPENDIX A

ORGANIZATIONAL CLIMATE DESCRIPTION QUESTIONNAIRE FOR ACADEMIC DEPARTMENTS IN COLLEGES AND UNIVERSITIES

Form 1

ORGANIZATIONAL CLIMATE DESCRIPTION QUESTIONNAIRE FOR ACADEMIC DEPARTMENTS IN COLLEGES AND UNIVERSITIES

FORM 1

There are 50 statements in this booklet. They are statements descriptive of academic departments or similar administrative units in four-year colleges and universities. The responses to this questionnaire will be used (1) to assess the relationships between the department head and faculty members, and among faculty members, and (2) to describe the organizational climate of the departments.

Directions:

Please record your answer in the space provided to the left of each of the items.

In considering each item, go through the following steps:

1. Read the item carefully.

2. Think about the extent to which the item characterizes or occurs in your department (or similar administrative unit).

3. To the left of the item indicate the response you feel is correct:

A. Almost always occurs.

B. Frequently occurs.

C. Approximately equal in occurrence and non-occurrence.

D. Infrequently occurs.

E. Almost never occurs.

4. Respond to every item.

Key:
A - Almost always occurs
B - Frequently occurs
C.- Approximately equal in occurrence and non-occurrence.
D - Infrequently occurs
E - Almost never occurs

Circle the response.

A B C D E 1. The Department Head puts the department's welfare above the welfare of any faculty member in it. (76)

A B C D E 2. Faculty members recognize that there is a right and wrong way of going about departmental activities. (69)

A B C D E 3. Most students are more concerned with the present than the future. (15)

A B C D E 4. Faculty start projects without trying to decide in advance how they will develop or where they may end. (33)

A B C D E 5. There is a recognized group of student leaders within the department. (45)

A B C D E 6. Students respond to ideas and events in a pretty cool and detached way. (63)

A B C D E 7. Students call faculty members by their first names. (65)

A B C D E 8. The Department Head has faculty members share in making decisions. (52)

A B C D E 9. The Department Head displays tact and humor. (50)

A B C D E 10. Faculty members express concern about the "deadwood" in this department. (72)

A B C D E 11. Scheduled appointments by faculty members are not kept. (46)

A B C D E 12. The Department Head regards what faculty members do outside of the group as no concern to him. (58)

A B C D E 13. Students take little interest in departmental administration (until they are personally affected). (70)

A B C D E 14. There is a great deal of borrowing and sharing among the faculty. (4)

A B C D E 15. The Department Head has everything going according to schedule. (20)

A B C D E 16. The Department Head engages in friendly jokes and comments during department meetings. (49)

A B C D E 17. The Department Head encourages the use of certain uniform procedures. (61)

A B C D E 18. Faculty members talk about leaving the college or university. (31)

A B C D E 19. The Department Head is first in getting things started. (54)

A B C D E 20. The Department Head sells outsiders on the importance of his department. (34)

A B C D E 21. Faculty members seem to thrive on difficulty--the tougher things get, the harder they work. (29)

A B C D E 22. Faculty members enjoy getting together for bowling, dancing, card games, etc. (20)

A B C D E 23. Tensions between faculty factions interfere with departmental activities. (42)

A B C D E 24. Close friendships are found among the department faculty. (62)

A B C D E 25. The Department Head is friendly and approachable. (60)

A B C D E 26. The Department Head finds time to listen to faculty members. (43)

A B C D E 27. The Department Head accepts change in departmental policy or procedure. (39)

A B C D E 28. The Department yields to pressure of a few students who are not representative of student opinion. (22)

A B C D E 29. Everyone enjoys their associations with their colleagues in this department. (71)

A B C D E 30. The morale of the faculty members is high. (17)

A B C D E 31. The department works as a committee of the whole. (35)

A B C D E 32. There are periodic informal social gatherings. (14)

A B C D E 33. There are opportunities within the department for faculty members to get together in extra-curricular activities. (56)

A B C D E 34. The Department Head changes his approach to meet new situations. (7)

A B C D E 35. The important people in this department expect others to show respect for them. (9)

A B C D E 36. Students are encouraged by faculty members to criticize administrative policies and teaching practices. (13)

A B C D E 37. Older faculty control the development of departmental policy. (10)

A B C D E 38. Faculty members ask permission before deviating from common policies or practices. (44)

A B C D E 39. The Department Head maintains definite standards of performance. (8)

A B C D E 40. Individual faculty members are always trying to win an argument. (5)

A B C D E 41. When students do not like an administrative decision, they really work to get it changed. (40)

A B C D E 42. The Department Head uses constructive criticism. (59)

A B C D E 43. The Department Head delegates the responsibility for departmental functions among the faculty. (48)

A B C D E 44. New jokes and gags get around the department in a hurry. (36)

A B C D E 45. Faculty members approach their problems scientifically and objectively. (32)

A B C D E 46. Faculty members talk to each other about their personal lives. (16)

A B C D E 47. The faculty uses parliamentary procedures in meetings. (6)

A B C D E 48. The Department Head treats all faculty members as his equal. (38)

A B C D E 49. The department is thought of as being very friendly. (30)

A B C D E 50. Faculty members in this department use mannerisms which are annoying. (51)

Directions for Scoring the Organizational Climate Description Questionnaires for Academic Departments in Colleges and Universities

by Berge Borrevik

Scoring: To determine a score of each of the six subtests, the responses for each item as converted into numerical values using the following scale:

A = 5, B = 4, C = 3, D = 2, E = 1.

Item scores for each subtest are summed and then divided by the number of items. The form below may be used to determine subtest scores for each department.

Subtest	#	1	#	2	#	3	#	4	#	5	#	6
	7		4		5		6		13		58	
	17		14		9		8		40		63	
	35		16		10		20		45		70	
	38		26		22		29		65		75	
	39		30		31		34					
	43		36		32		44					
	48		56		33		54					
	49		62		42		61					
	50		71		46		69					
	52				51		70					
	59				72							
	60											
N: =	12		9		11		10		4		4	
Mean												

Once each individual faculty members subtest scores have been determined then a department mean should be calculated for each subtest scores. Add the scores for each subtest and convert to a standardized score in Table I.

Table I

CONVERSION OF SUBTEST RAW SCORES TO STANDARDIZED SCORES BY SUBTEST

	1	2	3	4	5	6
*Mean	3.72	3.16	2.60	3.41	3.08	3.29
*S.D.	1.16	1.15	1.16	1.10	1.18	1.01
Raw Scores	Standard Scores (M = 50; S.D. = 10)					
5.0	61.0	66.0	70.7	64.5	66.3	65.8
4.9	60.2	65.1	69.8	63.5	65.4	64.9
4.8	59.3	64.3	68.9	62.6	64.6	64.0
4.7	58.5	63.4	68.1	61.7	63.7	63.0
4.6	57.6	62.5	67.2	60.8	62.9	62.1
4.5	56.7	61.7	66.3	59.9	62.0	61.2
4.4	55.9	60.8	65.5	59.0	61.2	60.3
4.3	55.0	59.9	64.7	58.1	60.3	59.3
4.2	54.2	59.0	63.8	57.2	59.5	58.4
4.1	53.3	58.2	62.9	56.3	58.6	57.5
4.0	52.4	57.3	62.0	55.4	57.8	56.5
3.9	51.6	56.4	61.2	54.4	56.9	55.6
3.8	50.7	55.6	60.4	53.5	56.1	54.7
3.7	49.9	54.7	59.5	52.6	55.2	53.7
3.6	49.0	53.8	58.6	51.7	54.4	52.8
3.5	48.1	53.0	57.7	50.8	53.5	51.9
3.4	47.3	52.1	56.8	49.9	52.7	51.0
3.3	46.4	51.2	56.0	49.0	51.8	50.0
3.2	45.6	50.3	55.2	48.1	51.0	49.1
3.1	44.7	49.5	54.3	47.2	50.1	48.2
3.0	43.8	48.6	53.4	46.3	49.3	47.2
2.9	43.0	47.7	52.6	45.4	48.4	46.3
2.8	42.1	46.9	51.7	44.4	47.6	45.4
2.7	41.3	46.0	50.9	43.5	46.7	44.4
2.6	40.4	45.1	50.0	42.6	45.9	43.5
2.5	39.5	44.3	49.1	41.7	45.0	42.6
2.4	38.7	43.4	48.3	40.8	44.2	41.7
2.3	37.8	42.5	47.4	39.9	43.3	40.7
2.2	37.0	41.6	46.6	39.0	42.5	39.8
2.1	36.1	40.8	45.7	37.2	41.6	38.9
2.0	35.2	39.9	44.9	36.3	40.8	37.9

*Determined by scores from 47 departments in 12 institutions in the Pacific Northwest.

Table I (Continued)

Raw Scores	1	2	3	4	5	6
	Standard Scores (M = 50; S.D. = 10)					
1.9	34.4	39.8	44.0	35.3	39.9	37.0
1.8	33.5	38.2	43.1	34.4	39.1	36.1
1.7	32.7	37.3	42.3	33.5	38.2	35.1
1.6	31.8	36.4	41.4	32.6	37.4	34.2
1.5	30.9	35.6	40.5	31.7	36.5	33.3
1.4	30.1	34.7	39.7	30.8	35.7	32.4
1.3	29.5	33.8	38.8	29.9	34.8	31.4
1.2	28.7	32.9	38.0	29.0	34.0	30.5
1.1	27.8	32.1	37.1	28.1	33.1	29.6
1.0	26.9	31.2	36.2	27.2	32.3	28.6

Interpretation: The interpretation of subtest scores for departments which are outside the defined population used in the investigation is questionable. Specific inferences should not be from the results of the investigation. Subtest scores can safely be used to determine relative saturations of the identified domains.

Each subtest score may be interpreted by the relative presence or absence of each domain. The subtest scores may be compared with the table found below to determine how closely the department matches the "ideal" climate.

Table II

SUBTEST SCORES AND FACTOR LOADINGS FOR EACH "IDEAL" CLIMATE

Climate	Disengagement	Intimacy	Production Emphasis	Consideration	Student Involvement	Aloofness
Open	--	++		++		-
Controlled	-		++		-	
Autonomous	--	--		++		+
Paternal	++		+			--
Familiar			--		+	
Closed	++	-		--		++

Key:

++ = 1.0 S.D.

+ = 0.5 S.D.

-- = -1.0 S.D.

- = -0.5 S.D.

APPENDIX B

INTERCORRELATIONAL MATRIX FOR 80 ITEMS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	[illegible]	30	31
1	1.00	-16*	12	12	-06	-06	05	06	-11	-10	03	-02	02	15	20	14	10	06	-08	10	12	-06	-11	12	-02	14	03	05	[illegible]	09	-00
2		1.00	-33	-28	32	02	-26	-32	40	41	-36	27	-16	-11	-37	-08	-43	-43	40	-18	-46	33	33	-03	34	-09	-26	-38	[illegible]	-25	32
3			1.00	31	-11	05	43	32	-15	-17	30	-13	20	22	41	20	43	45	-43	20	48	-15	-34	07	-34	11	17	33	[illegible]	21	-23
4				1.00	-23	-11	30	23	-26	-25	21	-06	16	34	28	34	43	33	-18	19	31	-13	-26	09	-19	31	30	41	[illegible]	46	-21
5					1.00	08	-20	-15	31	21	-09	11	00	-11	-21	-05	-26	-21	20	-16	-23	11	24	04	21	-07	-12	-21	[illegible]	-21	25
6						1.00	14	26	09	09	15	-09	02	03	05	-03	11	17	-17	17	14	01	-05	-09	-18	09	11	12	[illegible]	-02	-02
7							1.00	42	-16	-22	32	-12	11	23	39	19	48	52	-34	36	47	-16	-47	-06	-31	17	24	37	[illegible]	34	-29
8								1.00	-05	-10	27	-22	10	23	25	09	45	45	-37	46	43	-20	-31	-06	-41	12	22	35	[illegible]	30	-22
9									1.00	43	-19	13	-16	-12	-26	-10	-25	-26	24	-14	-28	21	27	-02	15	-11	-17	-28	[illegible]	-25	27
10										1.00	-19	05	-16	-15	-28	-17	-31	-31	24	-13	-28	20	32	07	14	-14	-17	-27	[illegible]	-20	24
11											1.00	-19	28	13	33	21	40	48	-37	17	43	-17	-31	03	-28	08	30	33	[illegible]	26	-18
12												1.00	-01	05	-19	03	-17	-21	23	-11	-21	24	15	07	25	-03	-10	-16	[illegible]	-06	20
13													1.00	12	17	16	24	24	-12	05	24	-01	-12	18	-03	03	13	17	[illegible]	11	-02
14														1.00	28	30	41	26	-10	19	21	-00	-19	04	-16	44	17	26	[illegible]	33	-11
15															1.00	26	50	54	-44	23	57	-15	-40	02	-34	15	26	42	[illegible]	38	-27
16																1.00	32	32	-10	15	20	-05	-18	17	-04	37	18	24	[illegible]	34	-03
17																	1.00	66	-44	42	55	-18	-39	03	-41	28	39	51	[illegible]	54	-47
18																		1.00	-46	43	66	-20	-49	02	-42	20	30	50	[illegible]	40	-40
19																			1.00	-25	-48	27	43	05	46	-12	-28	-41	[illegible]	-22	34
20																				1.00	34	-04	-22	-15	-27	15	21	26	[illegible]	26	-24
21																					1.00	-24	-47	-01	-38	13	34	51	[illegible]	34	-34
22																						1.00	23	06	20	-02	-13	-19	[illegible]	-12	21
23																							1.00	03	39	-12	-20	-32	[illegible]	-31	31
24																								1.00	09	07	01	02	[illegible]	05	07
25																									1.00	-14	-18	-29	[illegible]	-24	36
26																										1.00	24	24	[illegible]	31	-11
27																											1.00	37	[illegible]	33	-21
28																												1.00	[illegible]	42	-31
29																													[illegible]	37	-32
30																														1.00	-35
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*Note: Decimal points are omitted.

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
12	-06	-12	12	-02	14	03	05	[illegible]	09	-00	02	-03	04	12	07	-03	12	09	-02	05	-09	12	00	-11	-03	-11	06	22	15	-06	07	15	14	08	10	-03	-05	06	21	-02	02	-08	01	08	13
-46	33	33	-03	34	-09	-26	-38	[illegible]	-25	32	-25	28	-14	-39	-17	14	-43	-42	-05	-36	45	-38	-05	-02	16	37	-30	-25	-38	23	-41	-39	-18	11	-11	37	-05	-32	-36	-04	-19	24	24	02	-37
48	-15	-34	07	-34	11	17	33	[illegible]	21	-23	13	-15	14	-29	18	-12	44	45	18	40	-24	42	07	15	-09	-33	30	34	47	-12	44	47	22	-16	16	-32	-03	40	41	09	19	-10	-06	13	45
31	-13	-26	09	-19	31	30	41	[illegible]	46	-21	25	-23	20	31	36	-25	26	30	14	38	-36	25	12	08	-18	-21	15	30	30	-18	28	34	21	-03	34	-19	-07	28	34	07	35	-15	-15	04	31
-23	11	24	04	21	-07	-12	-21	[illegible]	-21	25	-22	18	-08	-23	-07	05	-23	-23	-04	-18	43	-14	-03	-03	13	21	-10	-10	-21	34	-20	-18	-15	10	-05	12	-03	-12	-17	07	-14	15	19	06	-18
14	01	-05	-09	-18	09	11	12	[illegible]	-02	-02	11	-04	10	10	-02	-04	09	17	16	16	-01	14	-01	10	06	-12	18	06	14	04	19	18	12	-06	05	-07	00	17	05	28	12	-00	-01	-03	17
47	-16	-47	-06	-31	17	24	37	[illegible]	34	-29	28	-19	31	34	19	-15	39	54	15	[illegible]	-28	41	09	07	-13	-40	-37	36	50	-12	-48	51	41	-12	27	-33	-04	47	40	11	29	-10	-12	-01	47
43	-20	-31	-06	-41	12	22	35	[illegible]	30	-22	36	-26	27	32	20	-15	30	43	18	53	-32	36	20	16	-11	-32	36	25	36	-13	39	47	37	-12	19	-31	-05	44	25	33	27	-15	-24	-05	41
-28	21	27	-02	15	-11	-17	-28	[illegible]	-25	27	-22	23	-10	-28	-12	08	-34	-28	-02	-20	39	-25	01	07	13	26	-20	-23	-23	28	-26	-21	-11	12	-08	23	01	-17	-20	04	-14	03	08	11	-23
-28	20	32	07	14	-14	-17	-27	[illegible]	-20	24	-18	15	-13	-32	-09	11	-31	-29	-09	-27	34	-20	-00	04	20	19	-17	-27	-29	25	-26	-24	-17	03	-14	22	-01	-18	-26	03	-16	07	13	08	-29
43	-17	-31	03	-28	08	30	33	[illegible]	26	-18	23	-18	20	33	15	-14	41	44	15	32	-19	38	04	11	-09	-32	35	28	39	-10	50	38	12	-06	17	-34	02	34	34	09	24	-11	-09	04	40
-21	24	15	07	25	-03	-10	-16	[illegible]	-06	20	-08	21	-06	-13	-04	07	-22	-21	-02	-15	19	-24	-01	-01	13	20	-14	-10	-19	13	-22	-21	-09	15	-02	26	-05	-20	-21	-14	-06	05	08	04	-20
24	-01	-12	18	-03	08	13	17	[illegible]	11	-02	10	-02	06	14	09	-15	20	24	29	18	-05	19	01	13	-09	-11	18	13	13	-03	21	19	-00	-10	09	-10	06	18	13	07	06	-04	06	13	11
21	-00	-19	04	-16	44	17	26	[illegible]	33	-11	18	-10	16	24	28	-23	21	26	14	30	-19	22	06	10	-10	-18	19	24	23	-12	23	27	23	-01	49	-06	-11	23	23	03	35	-09	-08	03	23
57	-15	-40	02	-34	15	26	42	[illegible]	38	-27	29	-19	24	46	18	-17	61	53	10	41	-33	63	04	07	-18	-45	38	48	68	-15	57	49	26	-09	23	-39	-00	44	77	07	24	-16	-11	-03	56
20	-05	-18	17	-04	37	18	24	[illegible]	34	-03	13	-09	16	23	28	-17	21	25	09	23	-07	22	-01	05	-07	-15	15	31	24	-04	23	23	12	-06	35	-07	-11	21	27	-01	41	-13	-01	10	24
55	-18	-39	03	-41	28	39	51	[illegible]	54	-47	40	-27	33	55	30	-18	50	56	25	55	-49	49	17	15	-17	-40	40	40	56	-23	58	55	35	-16	32	-34	-02	45	50	17	38	-22	-24	01	53
66	-20	-49	02	-42	20	30	50	[illegible]	40	-40	36	-29	35	52	26	-19	52	66	27	57	-30	52	14	10	-17	-45	50	41	59	-14	68	61	43	-17	28	-39	-09	53	52	23	33	-21	-24	00	57
-48	27	43	05	46	-12	-28	-41	[illegible]	-22	34	-24	30	-13	-39	-11	18	-45	-50	-13	-46	31	-45	-08	-09	16	36	-38	-30	-48	15	-55	-56	-24	25	-11	35	03	-41	-41	-15	-20	13	21	-01	-48
34	-04	-22	-15	-27	15	21	26	[illegible]	26	-24	29	-24	39	35	17	-03	25	38	13	38	-23	33	20	10	-16	-25	29	27	32	-17	35	49	46	-02	21	-19	-10	36	24	29	26	-03	-24	-07	37
1.00	-24	-47	-01	-38	13	34	51	[illegible]	34	-34	31	-23	32	50	21	-16	64	67	21	57	-33	59	08	07	-13	-48	48	46	64	-09	66	58	31	-17	23	-45	-04	50	60	15	27	-16	-10	-02	62
	1.00	23	06	20	-02	-13	-19	[illegible]	-12	21	-13	23	-13	-22	01	09	-24	-18	13	-25	22	-24	-09	06	10	22	-15	-15	-22	19	-24	-23	-09	16	-01	20	-06	-17	-22	-09	-08	04	15	07	-19
		1.00	03	39	-12	-20	-32	[illegible]	-31	31	-17	24	-20	-30	-10	20	-39	-58	-10	-42	28	-35	-01	-03	09	37	-36	-28	-45	17	-48	-43	-28	19	-21	36	-06	-46	-40	-00	-24	16	16	-01	-40
			1.00	09	07	01	02	[illegible]	05	07	-03	06	-11	-00	08	-04	01	02	13	-04	06	-02	-09	-05	13	04	01	04	-04	06	-00	01	-07	-01	05	-01	-05	-03	02	-05	-01	-06	19	48	-04
				1.00	-14	-18	-29	[illegible]	-24	36	-21	24	-12	-33	-15	19	-34	-41	-11	-42	34	-44	-09	-09	12	40	-27	-24	-41	16	-43	-43	-20	21	-15	35	10	-34	-38	-17	-18	20	16	06	-46
					1.00	24	24	[illegible]	31	-11	21	-10	17	19	33	-25	15	16	10	27	-15	16	07	01	-08	-07	13	26	16	-09	17	21	17	01	42	-07	-15	18	17	01	37	-15	-09	06	14
						1.00	37	[illegible]	33	-21	31	-19	51	32	20	-13	30	36	19	36	-25	29	20	06	-15	-24	28	19	30	-12	32	29	16	-18	26	-21	03	26	30	09	26	-17	-18	-09	27
							1.00	[illegible]	42	-31	34	-19	25	47	32	-17	47	50	22	44	-36	41	06	12	-13	-33	33	32	48	-18	49	49	21	-14	25	-35	-03	36	44	11	36	-13	-14	-01	43
								1.0	37	-32	37	-22	31	37	26	-15	30	33	22	40	-27	28	19	20	-21	-23	27	23	32	-17	35	36	26	-13	16	-24	-02	30	25	16	27	-14	-19	-06	30
									1.00	-35	36	-21	28	37	36	-21	36	42	20	42	-36	-38	16	17	-12	-32	-20	37	40	-16	-36	37	20	-07	38	-24	-08	31	45	10	43	-24	-21	-01	34
										1.00	-27	29	-21	-29	-18	17	-31	-32	-16	-35	37	-26	-14	-05	10	28	-29	-22	-35	24	-37	-32	-23	14	-15	25	02	-23	-31	-12	-17	16	24	06	-34
											1.00	-26	23	38	20	-06	33	31	23	35	-34	25	14	07	-17	-27	32	19	30	-21	33	30	22	-12	21	-16	-03	23	29	12	23	-15	-27	-08	27
												1.00	-12	-28	-10	09	-22	-28	-06	-25	29	-24	-15	-09	12	24	-21	-16	-21	15	-31	-31	-21	07	-11	21	07	-21	-20	-15	-11	18	29	04	-27
													1.00	-28	19	-04	18	25	07	41	-19	27	16	03	-12	-20	22	27	31	-08	27	35	45	11	12	-14	-06	28	23	19	26	-07	-16	-10	30
														1.00	26	-14	46	50	17	51	-38	44	15	09	-18	-30	38	38	49	-20	54	49	28	-12	20	-29	-06	39	45	18	27	-16	-16	-04	51
															1.00	-29	20	20	20	27	-16	21	13	14	-05	-10	19	28	26	00	20	25	17	02	31	-14	-10	22	19	07	33	-22	-07	02	22
																1.00	-17	-20	-04	-24	08	-17	04	-06	06	15	-16	-17	-18	06	-18	-18	02	06	-29	14	10	-25	-22	-03	-27	19	07	00	-1
																	1.00	63	21	44	-34	54	01	07	-12	-42	41	42	59	-17	55	50	22	-19	21	-40	06	46	57	03	23	-16	-11	00	5
																		1.00	22	57	-36	54	06	08	-14	-49	48	41	62	-14	68	58	31	-19	28	-42	-00	52	54	16	33	-15	-15	01	6
																			1.00	23	-03	17	13	34	-02	-10	20	10	19	-04	20	18	09	-15	17	-12	03	20	17	17	11	-16	00	16	1
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																					1.00	-30	-03	02	22	40	-21	-27	-37	37	-32	-33	-25	10	-13	29	06	-22	-34	-10	-21	09	24	09	-3
																						1.00	16	14	-19	-43	41	49	60	-15	57	57	29	-12	26	-37	-05	48	66	21	26	-14	-15	-01	5
																							1.00	14	-10	-05	11	05	12	-04	10	15	22	-01	04	-03	-10	14	08	30	06	-07	-37	-05	0
																								1.00	-02	-06	14	06	10	08	07	14	05	01	14	-08	-08	19	13	21	09	-15	-09	10	1
																									1.00	22	-14	-12	-17	23	-18	-18	-13	08	-04	17	-06	-12	-16	-07	-08	06	23	13	-1
																										1.00	-33	-38	-49	22	-47	-42	-22	20	-22	47	00	-34	-43	-08	-28	15	10	08	-4
																											1.00	33	43	-09	62	51	26	-22	16	-29	-00	44	35	19	22	-15	-16	-01	4
																												1.00	65	-08	45	45	28	03	29	-33	-10	33	53	09	30	-13	-06	06	4
																													1.00	-15	63	59	35	-15	26	-41	-08	48	67	15	34	-18	-16	-04	6
																														1.00	-11	-15	-06	12	-04	12	-03	-10	-15	-01	-09	05	19	07	-1
																															1.00	67	32	-19	25	-42	-03	51	54	21	30	-13	-16	-03	6
																																1.00	50	-09	25	-33	-05	55	50	28	34	-13	-21	-00	5
																																	1.00	10	16	-16	-08	36	24	17	26	-06	-20	-03	3
																																		1.00	-02	17	-06	-09	-05	-05	-00	09	02	-02	-0
																																			1.00	-19	-16	29	25	05	43	-13	-06	07	
																																				1.00	01	-31	-36	-07	-16	14	12	05	-
																																					1.00	03	-03	-05	-09	15	09	-05	-
																																						1.00	49	25	26	-11	-20	07	
																																							1.00	11	30	-17	-14	00	
																																								1.00	09	-04	-24	-01	
																																									1.00	-18	-04	03	
																																										1.00	13	-01	-
																																											1.00	17	-
																																												1.00	-
																																													1.

INTERCORRELATION MATRIX FOR 80 ITEMS

53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	
15	14	08	10	-03	-05	06	21	-02	02	-08	01	08	13	05	04	-09	09	11	-07	00	04	-06	-04	-14	-05	-00	-01	1
-39	-18	11	-11	37	-05	-32	-36	-04	-19	24	24	02	-37	-06	-18	-02	04	-29	28	-17	-38	13	02	44	31	-05	-26	2
47	22	-16	16	-32	-03	40	41	09	19	-10	-06	13	45	11	30	03	-05	24	-11	22	41	-12	02	-37	-31	-02	20	3
34	21	-03	34	-19	-07	28	34	07	35	-15	-15	09	31	13	26	10	-03	41	-16	16	33	-09	03	-29	-14	23	37	4
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18	12	-06	05	-07	00	17	05	28	12	-00	-01	-01	17	20	20	14	-09	02	12	04	15	03	26	-07	-09	-09	09	6
51	41	-12	27	-33	-04	47	40	11	29	-10	-12	-01	47	20	33	13	-09	33	-19	20	46	-09	17	-36	-29	-01	38	7
47	37	-12	19	-31	-05	44	28	33	27	-15	-24	-05	41	19	42	27	-08	33	-10	08	44	-02	28	-28	-24	07	36	8
-21	-11	12	-08	23	01	-17	-20	04	-14	03	08	11	-23	-02	-01	07	07	-26	26	-15	-22	14	09	27	22	00	-18	9
-24	-17	03	-14	22	-01	-18	-26	03	-16	07	13	08	-29	-09	-08	01	04	-19	29	-13	-24	10	11	36	20	01	-28	10
38	12	-06	17	-34	02	34	34	09	24	-11	-09	04	40	16	24	09	-09	22	-15	32	41	-05	06	-31	-25	07	30	11
-21	-09	15	-02	26	-05	-20	-21	-14	-06	05	08	04	-20	-02	-08	-04	-01	-10	15	-07	-23	-01	-05	19	19	03	-10	12
19	-00	-10	09	-10	06	18	13	07	06	-04	06	13	11	09	04	00	-09	12	-02	15	16	-05	-02	-18	-06	-09	10	13
27	23	-01	49	-06	-11	23	23	03	35	-09	-08	03	23	15	31	16	-05	30	-06	04	26	-06	11	-17	-09	05	27	14
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58	31	-17	23	-45	-04	50	60	15	27	-16	-10	-02	62	17	32	07	-06	34	-16	29	61	-11	02	-52	-48	02	38	21
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01	-07	-01	05	-01	-05	-03	02	-05	-01	-06	19	48	-04	08	-02	-10	-07	00	04	11	06	-05	-17	-04	09	00	-07	24
-43	-20	21	-15	35	10	-34	-38	-17	-18	20	16	06	-46	-10	-32	-18	08	-29	14	-13	-39	07	-13	32	30	-02	-27	25
21	17	01	42	-07	-15	18	17	01	37	-15	-09	06	14	16	24	03	-08	30	-11	03	21	-06	06	-14	-01	17	24	26
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49	21	-14	25	-35	-03	36	44	11	36	-13	-14	-01	43	21	35	17	-06	42	-15	22	43	-03	13	-47	-26	08	42	28
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37	20	-07	38	-24	-08	31	45	10	43	-24	-21	-01	34	19	36	14	-11	51	-15	18	40	-06	01	-32	-21	16	46	30
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35	45	11	12	-14	-06	28	23	19	26	-07	-16	-10	30	20	40	15	03	29	-16	13	33	00	17	-11	-15	11	32	34
49	28	-12	20	-29	-06	39	45	18	27	-16	-16	-04	51	11	33	15	-10	46	-18	24	54	-04	10	-39	-24	18	44	35
25	17	02	31	-14	-10	22	19	07	33	-22	-07	02	22	19	30	12	-10	30	-01	21	22	-08	06	-13	-02	12	25	36
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57	29	-12	26	-37	-05	48	66	21	26	-14	-15	-01	58	14	36	10	-06	32	-14	24	55	-06	07	-40	-42	03	37	43
15	22	-01	04	-03	-10	14	08	30	06	-07	-37	-05	04	04	18	26	-02	16	-11	-11	13	02	14	04	-00	17	19	44
14	05	01	14	-08	-08	19	13	21	09	-15	-09	10	14	07	16	14	-27	08	12	08	11	-02	09	-04	-02	02	19	45
-18	-13	08	-04	17	-06	-12	-16	-07	-08	06	23	13	-11	-01	00	-12	02	-12	24	02	-16	07	-04	17	17	-07	-20	46
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59	35	-15	26	-41	-08	48	67	15	34	-18	-16	-04	63	19	40	10	-08	39	-17	25	61	-07	01	-43	-44	04	43	50
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67	32	-19	25	-42	-03	51	54	21	30	-13	-16	-03	65	15	38	16	-11	35	-26	29	60	-05	11	-51	-43	02	46	52
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		1.00	-02	17	-06	-09	-05	-05	-00	09	02	-02	-09	01	02	-07	04	-08	05	00	-15	07	05	18	27	06	-05	55
			1.00	-19	-16	29	25	05	43	-13	-06	07	31	16	33	10	-09	32	-02	16	30	-06	05	-18	-09	17	33	56
				1.00	01	-31	-36	-07	-16	14	12	05	-38	-07	-18	02	08	-19	14	-23	-41	11	-01	41	34	05	-18	57
					1.00	03	-03	-05	-09	15	09	-05	-06	-06	-13	00	14	-03	04	-01	-05	09	-02	01	-05	-07	-10	58
						1.00	49	25	26	-11	-20	07	52	21	44	19	-09	29	-05	21	51	-01	18	-35	-27	06	37	59
							1.00	11	30	-17	-14	00	59	18	34	11	-09	36	-08	25	55	-06	-01	-43	-36	01	39	60
								1.00	09	-04	-24	-01	18	11	26	30	-07	12	-01	-01	18	05	25	-04	-14	08	16	61
									1.00	-18	-04	03	30	24	36	17	-05	44	-13	18	33	-03	12	-17	-10	10	38	62
										1.00	13	-01	-12	-03	-14	00	26	-13	07	-03	-09	14	04	15	09	02	-16	63
											1.00	17	-09	-02	-10	-23	05	-17	25	09	-14	05	-05	11	10	-13	-26	64
												1.00	-02	05	-02	-10	-14	-02	07	10	02	-05	-10	-00	13	00	-02	65
													1.00	18	45	10	-04	36	-19	34	61	-05	11	-45	-38	05	43	66
														1.00	28	27	-11	14	-02	16	18	-08	10	-09	-02	-05	23	67
															1.00	29	-05	35	-02	17	43	-09	27	-21	-15	11	34	68
																1.00	02	24	-00	-10	10	04	23	02	-01	12	31	69
																	1.00	-00	02	-03	-08	12	06	13	03	07	-11	70
																		1.00	-24	17	41	-05	21	-29	-12	27	48	71
																			1.00	03	-18	12	04	25	21	-08	-22	72
																				1.00	37	02	-02	-19	-12	09	21	73
																					1.00	-00	16	-40	-36	17	44	74
																						1.00	13	14	11	05	-00	75
																							1.00	02	04	12	18	76
																								1.00	42	09	-34	77
																									1.00	08	-17	78
																										1.00	24	79
																											1.00	80

APPENDIX C

UNROTATED ITEM FACTOR MATRIX FOR 80 ITEMS

THE OCDQ-HE

(N = 575)

UNROTATED ITEM FACTOR MATRIX FOR 80 ITEMS THE OCDQ-HE
(N = 575)

Item No.	1*	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	h^2
									Consideration										
7.	63@	01	-03	12	-10	07	-00	-01	27	-03	-06	-15	05	19	02	03	-13	-05	59
17.	78	09	04	-10	08	-10	08	-00	03	-03	-08	-04	-07	04	-03	-03	-01	-01	66
35.	66	02	05	-05	-04	-17	11	03	-11	-07	-04	-00	-03	-20	01	-08	21	03	60
38.	69	-27	-14	02	01	-11	-02	10	-06	05	-10	01	-04	-04	04	-10	-00	01	63
39.	78	-15	-11	12	03	-04	-02	03	14	02	02	-13	-00	-04	10	01	-06	-04	71
43.	70	-12	-11	16	-11	04	04	12	-23	10	-03	08	01	-03	-05	08	06	06	66
48.	59	-03	-02	20	11	-06	05	05	10	06	18	-17	-03	-17	04	-03	-06	11	53
49.	58	-02	-25	-07	-26	14	11	15	-07	01	01	12	-04	-08	-11	12	-01	08	59
50.	77	-13	-13	10	-15	07	03	18	-11	-00	-09	-01	-13	01	-00	08	02	07	75
52.	78	-14	-06	19	-02	-07	02	01	03	-00	10	-16	-01	-13	04	02	04	-02	74
59.	65	07	-09	25	-04	01	03	-06	-00	06	07	02	15	13	21	02	-11	-02	61
60.	70	-15	-20	02	-14	05	02	23	-27	08	-14	13	-11	-01	10	13	-06	00	79
									Intimacy										
4.	50	19	-07	-42	00	-06	04	-10	-11	05	01	04	11	22	02	-07	02	-11	58
14.	39	34	-18	-26	-08	13	-16	03	14	30	-08	-01	18	04	13	-05	12	02	60
16.	35	22	-34	-31	-10	-03	-05	04	00	18	15	-16	04	-04	-15	04	-00	-10	52
26.	32	38	-15	-37	-04	13	-18	-08	06	20	10	-02	08	-20	-04	-05	01	01	56
30.	59	23	-05	-30	05	-02	-05	14	-13	-06	-08	-05	-10	05	-03	-03	-16	10	60
36.	37	35	-20	-24	05	05	-06	00	-14	-14	07	16	01	09	-08	-28	-06	02	53
56.	41	35	-27	-25	-04	13	-23	-01	-03	08	-00	-14	19	-03	02	02	01	-01	57
62.	48	35	-14	-21	-10	02	-26	-04	07	-05	01	-03	03	-03	-08	04	-17	03	54
71.	59	25	14	-28	-04	-22	-06	-12	-06	-02	-21	00	-07	00	-04	03	00	13	65

*Factor number

@To conserve space the decimal points were omitted.

Item No.	1*	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	h^2
Disengagement																			
5.	-32@	17	-29	32	-08	-01	-03	03	-08	05	36	02	-06	-05	-17	04	10	04	52
9.	-38	31	-12	37	-02	11	-04	-02	-14	10	-07	-16	-10	10	-04	13	-16	-16	56
10.	-40	24	-08	33	04	08	-06	-16	-23	08	-21	-17	-12	-00	-20	03	-20	-05	61
22.	-31	26	-24	03	08	01	10	32	21	-04	-25	-09	07	-06	06	05	-03	-22	52
31.	-50	07	-26	12	-14	-10	-03	06	-01	23	04	06	21	-10	-09	-01	09	-23	55
32.	49	17	25	-12	17	-19	-00	13	04	05	-13	-05	-11	-24	-07	-08	-06	-08	53
33.	-39	03	-29	04	-12	-14	-10	13	14	01	-11	02	-13	22	-08	12	10	22	48
42.	-53	17	-33	32	-02	-04	-01	09	-08	04	24	-18	02	03	04	-04	-08	02	64
46.	-25	07	-29	13	-02	04	01	-26	02	-24	-18	-08	-26	-14	25	-35	03	18	65
51.	-27	13	-36	32	-07	11	03	09	-06	-09	23	-09	-14	00	01	-33	-06	-22	61
72.	-31	19	-38	31	02	-06	-14	07	-21	02	-19	11	07	07	05	-22	11	-08	58
Production Emphasis																			
6.	18	16	-01	48	11	-00	-24	-09	24	-00	-08	16	-03	-35	-14	03	10	-02	61
8.	58	19	18	27	06	09	-03	-22	08	07	-09	08	08	02	-03	-13	-07	-06	60
20.	50	26	25	16	-17	05	17	02	20	04	-08	-07	15	-03	-17	-02	03	-04	58
29.	52	25	15	-04	16	-13	-02	01	04	-08	01	02	-13	16	-21	02	07	-16	53
34.	42	27	14	08	-32	-04	14	09	19	-18	13	08	-09	11	-21	-02	-17	21	63
44.	19	33	33	10	09	07	30	10	-27	17	22	-04	-13	15	04	-07	03	11	59
54.	47	23	18	12	-32	15	32	-03	26	-03	-02	-05	07	05	-05	-12	-14	-02	66
61.	25	29	22	40	13	04	15	-09	-14	15	12	20	05	-07	-08	07	13	23	59
69.	23	41	30	18	16	-14	-15	04	-03	18	-03	10	-24	09	23	16	03	-17	64
76.	15	37	22	32	-13	-14	-15	-20	07	05	-13	11	22	-09	-04	-04	05	-02	52

*Factor number

@To conserve space the decimal points were omitted.

Item No.	1*	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	h^2
Student Involvement																			
13.	24@	-05	-29	-01	29	-31	17	05	17	17	24	15	24	08	-01	-05	11	16	60
40.	28	21	-20	12	50	-17	17	18	10	06	-17	06	06	05	-01	-10	-04	17	61
45.	17	27	-11	20	40	09	15	20	-19	-16	-16	14	29	18	00	02	07	-07	62
65.	-03	06	-45	-06	22	-02	42	-41	01	11	-12	-05	-02	02	03	24	-13	-06	71
Detachment																			
58.	-08	-22	06	10	01	-48	-13	06	04	17	-05	13	01	26	03	-13	-40	04	62
63.	-25	-07	06	15	-34	-38	-01	-10	16	12	02	03	05	15	11	20	24	-05	54
70.	-14	-05	13	-00	-49	-29	-15	-14	-12	23	05	-02	-13	20	00	-20	03	-13	59
75.	-13	11	-00	21	-18	-34	-06	07	-20	05	-06	-13	25	-26	35	05	-26	17	64
Consideration (Not used)																			
3.	56	-15	-21	11	02	07	12	-13	-00	11	-09	-02	02	35	00	-04	15	-12	60
11.	53	-10	-14	10	08	-24	-02	-06	-03	-16	23	03	07	-08	-08	07	-04	-19	53
15.	69	-21	-18	02	-17	02	02	26	-18	12	-14	08	-08	-05	09	10	-04	-00	75
18.	79	-02	-05	12	02	-03	11	01	09	-05	11	-15	05	-04	00	-05	-03	-00	70
19.	-62	22	-06	-18	-11	-06	03	14	04	-04	-06	03	08	03	-15	-03	-13	14	58
21.	76	-21	-14	15	-05	-05	04	06	-00	-01	02	-05	-06	00	-03	-14	05	01	71
23.	-59	21	04	-01	-01	-17	05	08	-21	07	-09	18	-02	-14	-28	-05	10	05	63
25.	-55	10	-13	-17	-10	-23	17	20	11	05	18	00	-01	-04	-06	-03	-12	05	56
41.	74	16	05	09	-03	02	-00	-08	06	01	09	-08	-08	05	08	-09	06	18	66
47.	-60	24	-03	-04	-00	-14	16	-03	-03	-09	12	02	-05	-04	25	-12	08	-04	57
53.	76	04	01	19	-10	04	14	-08	05	09	04	-02	07	-02	03	-01	00	-01	67
57.	-52	30	04	-07	-07	-10	10	03	08	11	-03	-06	-12	-07	25	03	10	13	52
66.	74	-09	-11	16	-19	02	01	-01	-05	-11	-09	-01	01	-03	04	01	11	-06	67
73.	31	-08	-35	01	-10	-28	-01	-11	-12	-46	09	02	08	04	-10	12	07	-06	61
74.	74	-02	-09	12	-14	-08	03	-10	-12	-06	-00	-08	05	-02	-04	10	02	08	66
78.	-49	38	-05	-14	-03	-10	18	-10	02	-15	-02	13	01	-10	17	-01	-06	-13	56

*Factor number

@To conserve space decimal points were omitted.

Item No.	1*	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	h^2
Intimacy (Not used)																			
27.	47@	11	06	-11	19	-18	-13	12	-04	09	17	-05	-24	-10	-10	-11	-03	-16	50
37.	-29	-12	20	16	-12	-21	38	12	11	04	-26	-09	-14	-06	-21	-10	03	-19	59
Production Emphasis (Not used)																			
68.	54	37	-07	18	-14	13	-09	-12	-00	-11	-05	13	-16	16	05	-04	06	13	63
79.	12	32	20	-22	-14	-22	11	-21	-35	-14	-02	-27	05	-01	-04	13	15	-03	59
Not Used (Not assigned a subtest area)																			
1.	15	-08	-14	-20	-28	17	23	-09	-00	39	-05	28	-12	-18	-00	-11	-02	-07	55
2.	-56	33	-14	16	-06	05	-07	17	05	05	-09	-24	-06	02	-08	18	02	10	63
12.	-28	23	-17	-14	-05	-02	14	25	21	-02	-04	-22	-14	10	13	-05	36	-00	54
24.	-02	-00	-46	-19	19	-11	35	-38	-01	15	-01	00	-21	-10	-06	10	-11	01	67
28.	65	03	-05	-08	07	-20	-12	-01	-01	-04	-07	09	-07	-04	02	-16	05	-09	55
55.	-20	24	-05	-07	-41	08	25	12	02	-28	04	37	11	-08	13	03	-11	-14	65
64.	-28	-12	-51	05	-12	-20	-14	-14	17	-06	-24	02	-02	00	-18	-04	06	16	60
67.	27	27	-18	07	10	-02	-18	-00	27	-08	17	35	-37	03	14	30	-05	-10	71
77.	-60	33	08	10	-10	-02	05	-01	-09	-03	03	-03	-02	06	-02	07	-04	11	53
80.	63	29	12	-09	03	-16	03	14	01	-14	-01	-12	-00	-08	07	15	-00	-12	63
Eigen-Values	20.0	3.7	3.2	3.0	2.1	1.7	1.6	1.5	1.4	1.4	1.3	1.2	1.2	1.1	1.1	1.1	1.0	1.0	
% Variance	25	30	34	37	40	42	44	46	48	49	51	53	54	55	57	58	59	61	

*Factor number

@To conserve space decimal points were omitted.

APPENDIX D

PARTICIPATING DEPARTMENTS

PARTICIPATING DEPARTMENTS

School	Main Sample	Pilot Sample
Oregon State University	Agriculture Economics Botany Family Life Journalism Microbiology Modern Languages Recreation	Anthropology Art English Food & Nutrition General Engineering Geography Geology Horticulture Marketing, Finance & Production Soils
Portland State Univer.	Earth Sciences English Finance-Law Health and Physical Education	Economics Management Music
University of Oregon	Counseling Finance & Business Environment Home Economics Women's Physical Education	Chemistry Classics, Chinese & Japanese School of Community Service & Public Affairs Marketing, Insurance & Transportation Psychology Romance Languages Speech
Pacific Lutheran Univ.	Art Music Psychology Sociology	
Gonzaga University	School of Education	
Oregon College of Ed.	Art Music	

School	Main Sample
Central Wash. State	Business Ed. and Admin. Management Chemistry Economics & Business Administration Education History Home Economics Philosophy Political Science
Southern Oregon College	Music
University of Idaho	Business Civil Engineering Physical Education
Eastern Wash. State	Education Speech-Speech Correction Men's Physical Education
Washington State Univ.	Business Administration Child & Family Studies Computer Science Education Horticulture Music Veterinary Physiology & Pharmacology
Univ. of Washington	Educational Psychology Geography Germanic Language and Literature International Business, Marketing and Transportation Management and Organization Oceanography Philosophy Scandinavian Language & Literature

APPENDIX E

LETTERS AND ENCLOSURES TO CAMPUS COORDINATORS

I appreciate your tentative acceptance of the coordinator responsibility on your campus for the administration of my questionnaire. As you are probably aware it is very difficult to obtain high return percentages from such instruments, therefore, the success of my investigation will depend on how well I, with your assistance, can "sell" the importance of learning more about organizational climate in academic departments.

Enclosed are (1) a summary of the proposal, (2) an outline of the coordinator's responsibilities, and (3) the re-coding procedures. This information will give you an opportunity to better understand what I am attempting to accomplish.

I will be contacting you by telephone within the next few days to answer questions that you might have about your possible role and to ask for your commitment for this investigation.

Sincerely,

Berge Borrevik

RESEARCH PROPOSAL SUMMARY

This investigation will be used to construct an organizational climate description questionnaire that can be used to assess the relationships between leaders and faculty members, and among faculty members of academic departments or like administrative units in colleges and universities. These procedures will be followed:

1. Four preliminary questionnaires will be developed from a structured item bank, and administered to faculty members, excluding department chairmen, from a small number of randomly selected academic departments in colleges and universities in Western Oregon.

2. The data collected will be analyzed and the best 90-100 items will be used to construct a research questionnaire.

3. The research questionnaire will be administered to faculty members, excluding department chairmen, from 50 randomly selected academic departments or like administrative units from 18 colleges and universities in the states of Oregon, Washington and Idaho.

4. The data collected from the administration will be factor analyzed at item and sub-test levels, followed by the development of academic department profiles.

It is anticipated that the resulting questionnaire will be used for further research into the nature of environments surrounding academic departments as well as being a diagnostic instrument to be used by individual departments.

COORDINATOR RESPONSIBILITIES

The coordinator's function in the administration of the questionnaires will be:

1. To provide preliminary information necessary to determine if academic departments meet the requirements stipulated in the investigation's design.

2. Coordinate an on-campus visit of the investigator. The investigator will, with the coordinator's assistance, promote the completion of the questionnaire in the selected departments by discussing its importance with the department head and faculty members.

3. Act as an on-campus liaison between the investigator and the faculty members in each selected department.

4. Distribute the questionnaire to the faculty members in the selected departments.

5. To complete the follow-up procedure by soliciting prompt completion of the questionnaire by tardy respondents.

6. To distribute final summary reports to responding faculty members at the completion of the investigation.

RE-CODING PROCEDURE

Because of the behavioral nature of this investigation an elaborate coding procedure will be used to assure the anonymity of each respondent. The following pattern will be strictly adhered to:

1. Individual names will be solicited for use by the investigator. The coordinator will maintain a list of eligible full-time faculty members in each of the selected departments. This list will be of no value to the investigator and will not be made available to him.

2. Each questionnaire will be coded by department and individual in blue or black ink. As an example: 9-13. The 9 is the department designation and the 13 identifies the individual.

3. Each non-Oregon State University respondent will mail his own completed questionnaire to the Office of Planning and Institutuional Research at Oregon State University.

4. Each Oregon State University respondent will mail his own completed questionnaire to the Department of Physical Education for Men at Washington State University.

5. The Oregon State University respondents' questionnaires will be re-coded in blue or black ink, and mailed individually of the Office of Planning and Institutional Research at OSU.

6. All completed questionnaires will be re-coded by having the old code removed and a new code written in with red pencil.

7. The coordinator on each campus will be notified by the Office of Planning and Institutional Research about those who have completed the questionnaire so they may follow-up on non-responding faculty members.

8. The investigator will not know the re-coding plans.

APPENDIX F

LETTERS AND ENCLOSURES TO DEPARTMENT CHAIRMEN

UNIVERSITY OF OREGON

SCHOOL OF HEALTH,
PHYSICAL EDUCATION
AND RECREATION

EUGENE, OREGON 97403
telephone (code 503) 686-4101

Your department has been selected to be included in a study to validate an instrument to assess organizational climate of academic departments. This study is sponsored under the Regional Research Program of the United States Office of Education. Faculty members in your department will be asked to respond voluntarily to a series of statements about their relationship with you, interactions among themselves, and other factors which appear to make up the environment surrounding each department.

Enclosed is a resume of the study. The investigator believes that as you read it you will come to the conclusion that the study will be of direct benefit to you as a department head, as well as your faculty and administrative superiors.

The academic department has become the most influencial administrative unit within colleges and universities. The Department of Health, Education and Welfare in its Report on Higher Education published in March, 1971, points out that charges and counter-charges have been made about its effects upon the nature and effectiveness of the institution. Little research has been completed to explore and define the nature of the academic department.

An Organizational Climate Description Questionnaire for Academic Departments will allow for objective assessment of staff relationships which could lead to improved departmental efficiency.

The data is to be obtained from the faculty member of 70 randomly selected departments. To assure confidentiality of responses, an elaborate plan has been devised. The protection of the respondent has been foremost in the investigator's considerations:

1. The research questions will be coded, and when completed, will be mailed by the responding subjects.

2. The code on each completed questionnaire will be changed by an independent party, the Office of Planning and Institutional Research at Oregon State University in Corvallis, before being

mailed to the investigator. Respondents from Oregon State University will be protected since their responses are to be mailed to the Department of Physical Education for Men at Washington State University, Pullman, Washington, for re-coding before they will be processed in Corvallis.

3. Follow-up procedures will be accomplished by the Office of Planning and Institutional Research at Oregon State University. Lists of non-responding code numbers will be sent to coordinators on each campus. The coordinators will identify the non-responding subjects through lists only available to them and complete the follow-up procedure.

To assure clarity of purpose of this investigation and maximum return of completed questionnaires, a faculty member on each campus has been contacted, requesting his cooperation and participation as the administrator of the instrument. Enclosures listing the coordinator responsibilities and those who are to act as on-campus coordinators are included.

I am planning to visit your campus in the near future to meet with a member of your institution's administration to request their endorsement of this investigation. At that time I would like to discuss the investigation with you and/or your faculty.

Direct any questions or concerns that you have about your department's participation to me as soon as possible. The on-campus coordinator will contact you to obtain some preliminary data about the department and to arrange for a personal conference for me in your department.

Sincerely yours,

Berge Borrevik

BB/bp

Enclosures

SUMMARY STATEMENT OF THE INVESTIGATION

Need for the Study

Few attempts have been initiated to investigate organizations from the integrated "revisionist" theory of organizations because of the lack of adequate measurement tools. One problem in the development of such instruments is illustrated by a series of leader behavior studies in which Halpin found that leaders and subordinates developed different perceptions of the contribution of leader behavior dimensions to the effectiveness of leadership. Furthermore, the lack of clearly defined dimensions of organizational climate places constraints upon the inferences that can be drawn from investigations of organizations.

An investigation designed to study school environment was initiated in the early 1960's by Andrew Halpin and Don Croft. They studied the organizational climate of elementary schools developing the Organizational Climate Description Questionnaire (OCDQ), conceptualizing six types of organizational climates and identifying three profile-factors.

The development of analytical instruments such as the Organizational Climate Description Questionnaire (OCDQ) to be used in the investigation of the nature and effectiveness of academic departments is overdue. From a review of the aforementioned studies by Halpin and associates, as well as others, it is apparent that (1) little research has been completed on organizational climate of academic departments, and (2) an Organizational Climate Description Questionnaire applicable to the investigation of the nature of academic departments in colleges and universities needs to be developed. The proposed investigation appropriately is designed after the research which "validated" the original instrument.

Purpose

This investigation will be used to construct an organizational climate description questionnaire that can be used to assess the relationships between leaders and faculty members, and among faculty members of academic departments or like administrative units in colleges and universities.

Procedure

These procedures will be followed:

1. Four preliminary questionnaires will be developed from a structured item bank, and administered to faculty members, excluding department chairmen, from 20 randomly selected academic departments in colleges and universities in Western Oregon.

2. The data collected will be analyzed and the best 90-100 items will be used to construct a research questionnaire.

3. The research questionnaire will be administered to faculty members, excluding department chairmen, from 50 randomly selected academic departments or like administrative units from 13 colleges and universities in the states of Oregon, Washington and Idaho.

4. The data collected from the administration will be factor analyzed at item and sub-test levels, followed by the development of academic department profiles.

Summaries of the results of this investigation will be sent to the on-campus coordinators who will make them available to the participating institutions, department chairmen and faculty.

It is anticipated that the resulting questionnaire will be used for further research into the nature of the environments surrounding academic departments as well as being a diagnostic instrument to be used by individual departments.

UNIVERSITY OF OREGON

SCHOOL OF HEALTH,
PHYSICAL EDUCATION
AND RECREATION

EUGENE, OREGON 97403
telephone (code 503) 686-4101

February 4, 1972

Dear Department Head:

Enclosed is a copy of the questionnaire which will be distributed to your faculty in about one week.

An introductory letter will be appearing in faculty mail in the next day or two. If you feel it is appropriate I would appreciate action on your part that would generate a high voluntary response rate.

If any question arises please contact me personally or the on-campus coordinator.

Your department's cooperation in this project is greatly appreciated.

Sincerely,

Berge Borrevik
Instructor

Telephone:
503-686-4131

UNIVERSITY OF OREGON

SCHOOL OF HEALTH,
PHYSICAL EDUCATION
AND RECREATION
Department of
Health Education

EUGENE, OREGON 97403
telephone (code 503) 686-4119

September 1, 1972

This letter is to report on the completion of the investigation into the development of the Organizational Climate Description Questionnaire for Higher Academic Departments in colleges and universities which your department participated in during the last school year.

Enclosed are summaries of the results of this investigation, the final form of the instrument and a letter of appreciation to all those who participated. Would you see that they are distributed.

I personally would like to express my appreciation to you and your faculty members for the cooperation I received. Fifty-two departments out of twelve institutions of the Pacific Northwest participated. Eighty-two percent of the 698 eligible faculty members responded which was very gratifying.

I do not believe that the instrument in its present form is a finished product. It is my desire that someone who is interested in this area of organizational climate in higher education will use the results of my investigation as a "spring board" to further investigate the nature of academic departments and to identify other domains which pervade the climate which surrounds them.

Thank you again for your kind cooperation.

Sincerely,

Berge Borrevik
Doctoral Candidate in
Physical Education

BB/tu

enclosures

APPENDIX G

LETTERS TO PARTICIPATING FACULTY MEMBERS

UNIVERSITY OF OREGON

SCHOOL OF HEALTH,
PHYSICAL EDUCATION
AND RECREATION

EUGENE, OREGON 97403
telephone (code 503) 686-4101

Dear Faculty Member:

Soon you will receive a research questionnaire concerned with the relationships between department heads and faculty members, and among the faculty members. Perhaps you have already been alerted by your department head of its pending arrival. It is a vital part of a doctoral dissertation.

These are critical years for higher education, and some of the most pressing issues of this era have to do with how schools are operated, how decisions are made, and how different people are involved. While information on these issues is readily available about industry, government, and the military, it is amazing how little we know about academic organizations. This doctoral investigation, under the sponsorship of the Regional Research Program of the U.S. Office of Education, is an attempt to develop an instrument which will allow for objective assessment of staff relationships which could lead to improved departmental efficiency as well as a better understanding of their basic nature.

Stanley Ikenberry in the December 1970 AAUP Bulletin, reaffirms the fact that "the department has become the critically important operating unit in many, if not all, colleges and universities." Charges and counter charges have been made about its effectiveness. If departmental effectiveness is of great import to you, the investigator believes that this investigation will be of direct benefit to you as a faculty member. The knowledge obtained can be used by faculty as well as department heads to improve the departmental functionning.

When the questionnaire comes, won't you please take 15 minutes to complete and mail it? By doing so, you will contribute to knowledge about academic decision making process. Summaries of the results of this investigation and a copy of the final questionnaire will be made available for you. Thank you!

Sincerely yours,

Berge Borrevik
Instructor and
Doctoral Candidate

UNIVERSITY OF OREGON

SCHOOL OF HEALTH,
PHYSICAL EDUCATION
AND RECREATION

Department of
Health Education

EUGENE, OREGON 97403
telephone (code 503) 686-4119

September 1, 1972

Dear faculty member:

Attached to this letter is a synopsis of the investigation into the construction of the Organizational Climate Description Questionnaire for academic departments in colleges and universities, and the resulting instrument.

Your cooperation in completing the research form of the instrument was appreciated. To receive completed questionnaires from 82% of 698 faculty members from fifty-two departments in twelve institutions was gratifying.

It is my desire that further research is initiated to replicate my work and to improve on the instrument. If you are interested in the dissertation which resulted from this research, it will be available through the ERIC system in the near future.

Thank you again for your cooperation.

Sincerely,

Berge Borrevik
Doctoral Candidate in
Physical Education

BB /tu

Enclosures

APPENDIX H

CODE SHEET, CODING PROCEDURE, AND RESEARCH FORM OF THE QUESTIONNAIRE

145

QUESTIONNAIRE CODE

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RESPONDENTS:

1. Do not remove any of the following code sheets or change the code number!! Your responses will be of no value if they cannot be categorized into anonymous department groupings.

2. Oregon State University respondent questionnaires have a second code sheet so that they can be re-coded at Washington State University prior to being handled by the Office of Planning and Institutional Research in Corvallis.

3. To assure you that every possible precaution has been taken to protect your anonymity, the re-coding procedure has been included for your information.

4. The re-coding plans will be held in confidence by each office using them.

RE-CODING FORM

The code to be filled in to the right will be accomplished by the Office of Planning and Institutional Research, Oregon State University.

-

THE INVESTIGATOR HAS NO ACCESS TO PLAN USED TO DETERMINE THE ABOVE CODE NUMBER.

RE-CODING PROCEDURE

Because of the behavioral nature of this investigation, an elaborate coding procedure will be used to assure the anonymity of each respondent. The following pattern will be strictly adhered to:

1. Individual names have not been solicited for use by the investigator. The individual on-campus coordinators will maintain a list of eligible full-time faculty members in each of the selected departments. This list will be of no value to the investigator and will not be made available to him.

2. Each questionnaire will be coded by department and individual in blue or black ink. As an example: 9-13. The 9 is the department designation and the 13 identifies the individual.

3. Each non-Oregon State University respondent will mail his own completed questionnaire to the Office of Planning and Institutional Research at Oregon State University.

4. Each Oregon State University respondent will mail his own completed questionnaire to the Department of Physical Education for Men at Washington State University. The questionnaires will be re-coded in blue or black ink, and mailed individually to the Office of Planning and Institutional Research at OSU. All completed questionnaires will be re-coded by having the old code removed and a new code written in with red pencil.

5. The coordinator on each campus will be notified by the Office of Planning and Institutional Research about those who have completed the questionnaire so they may follow up on non-responding faculty members. The Oregon State coordinator will be notified through the Department of Physical Education for Men at Washington State University.

6. The investigator will not know the re-coding plans.

ORGANIZATIONAL CLIMATE DESCRIPTION PILOT QUESTIONNAIRE FOR ACADEMIC DEPARTMENTS IN COLLEGES AND UNIVERSITIES

Form A

There are 90 statements in this booklet. They are statements descriptive of academic departments or similar administrative units in four year colleges and universities. The responses to this questionnaire will be used 1) to select items for an instrument to be used to assess the relationships between the department head and faculty members, and among faculty members; and 2) to describe the organizational climate to a heterogeneous sample of departments.

Directions:

Please record your answer in the space provided to the left of each of the items.

In considering each item, go through the following steps:

1. Read the item carefully.

2. Think about the extent to which the item characterizes or occurs in your department (or similar administrative unit).

3. To the left of the item indicate the response you feel is correct:

A. Almost always occurs

B. Frequently occurs

C. Approximately equal in occurrence and non-occurrence

D. Infrequently occurs

E. Almost never occurs

4. Respond to every item.

Upon completion of the questionnaire, place it in the addresses envelope and mail it.

Key: A - Almost always occurs
B - Frequently occurs
C - Approximately equal in occurrence and non-occurrence
D - Infrequently occurs
E - Almost never occurs

Circle the correct response.

A B C D E 1. If a faculty member is not productive he is not encouraged to remain.

A B C D E 2. Faculty members have very little interest in round table, panel meetings, or other formal discussions.

A B C D E 3. The Department Head calls members by their first name.

A B C D E 4. Faculty members who know the right people in the department get a better break here.

A B C D E 5. The Department Head criticizes his own performance.

A B C D E 6. There is a great deal of borrowing and sharing among the faculty.

A B C D E 7. Individual faculty members are always trying to win an argument.

A B C D E 8. There are faculty members who are colorful and controversial.

A B C D E 9. The faculty uses parliamentary procedures in meetings.

A B C D E 10. The Department Head changes his approach to meet new situations.

A B C D E 11. The Department Head maintains definite standards of performance.

A B C D E 12. The important people in this department expect others to show respect for them.

A B C D E 13. Older faculty control the development of departmental policy.

A B C D E 14. Receptions, teas, or formal dances are well attended by department faculty.

A B C D E 15. The Department Head takes the blame when outsiders criticize the department.

A B C D E 16. Faculty members help select which courses will be taught.

Key: A - Almost always occurs
B - Frequently occurs
C - Approximately equal in occurrence and non-occurrence
D - Infrequently occurs
E - Almost never occurs.

Circle the correct response.

A B C D E 17. Faculty members have little or no personal privacy.

A B C D E 18. Students are encouraged by faculty members to criticize administrative policies and teaching practices.

A B C D E 19. A faculty member is under no pressure to explain why he is to be absent from a department meeting.

A B C D E 20. There are periodic informal social gatherings.

A B C D E 21. The Department Head makes faculty members feel at ease when talking with him.

A B C D E 22. Faculty members talk to each other about their personal lives.

A B C [✓ D] E 23. The morale of the faculty members is high.

A B C D E 24. The Department Head puts suggestions by the faculty into operation.

A B C D E 25. The Department Head acts without consulting the work group.

A B C D E 26. The Department Head has everything going according to schedule.

A B C D E 27. The Department Head encourages faculty members to express their ideas and opinions.

A B C D E 28. The department yields to pressure of a few students who are not representative of student opinion.

A B C D E 29. The Department Head resists changes in ways of doing things.

A B C D E 30. In talking with students, faculty members refer to their colleagues by their first names.

A B C D E 31. The Department Head is more interested in his extra-departmental relationships than those within the department.

K Key: A - Almost always occurs
B - Frequently occurs
C - Approximately equal in occurrence and non-occurrence.
D - Infrequently occurs
E - Almost never occurs

Circle the correct response.

A B C D E 32. Faculty members enjoy getting together for bowling, dancing, card games, etc.

A B C D E 33. Faculty members wear coats and ties on the campus.

A B C D E 34. Academic departments communicate with one another.

A B C D E 35. Faculty feelings are openly expressed.

A B C D E 36. Faculty members seem to thrive on difficulty--the tougher things get, the harder they work.

A B C D E 37. The department is thought os as being very friendly.

A B C D E 38. Faculty members talk about leaving the college or university.

A B C D E 39. Faculty members approach their problems scientifically and objectively.

A B C D E 40. Faculty start projects without trying to decide in advance how they will develop or where they may end.

A B C D E 41. The Department Head sells outsiders on the importance of his department.

A B C D E 42. The department works as a committee of the whole.

A B C D E 43. New jokes and gags get around the department in a hurry.

A B C D E 44. Faculty members eat lunch by themselves.

A B C D E 45. The Department Head treats all faculty members as his equal.

A B C D E 46. The Department Head accepts change in departmental policy or procedures.

A B C D E 47. When students do not like an administrative decision, they really work to get it changes.

Key: A - Almost always occurs
B - Frequently occurs
C - Approximately equal in occurrence and non-occurrence.
D - Infrequently occurs
E - Almost never occurs

Circle the correct response.

A B C D E 48. The Department Head encourages the faculty members to work as a team.

A B C D E 49. The Department Head insists on being informed of decisions made by individual faculty members.

A B C D E 50. Faculty members prepare administrative reports by themselves.

A B C D E 51. Tensions between faculty factions interfere with the department activities.

A B C D E 52. The Department Head finds time to listen to faculty members.

A B C D E 53. Faculty members ask permission before deviating from common policies or practices.

A B C D E 54. There is a recognized group of student leaders within the department.

A B C D E 55. Scheduled appointments by faculty members are not kept.

A B C D E 56. The Department Head blames the same faculty members when anything goes wrong.

A B C D E 57. The Department Head delegates the responsibility for department function among the faculty.

A B C D E 58. The Department Head engages in friendly jokes and comments during department meetings.

A B C D E 59. The Department Head displays tact and humor.

A B C D E 60. Faculty members in this department use mannerisms which are annoying.

A B C D E 61. The Department Head has faculty members share in making decisions.

A B C D E 62. The Department Head keeps the faculty informed.

A B C D E 63. The Department Head is first in getting things started.

Key: A - Almost always occurs
B - Frequently occurs
C - Approximately equal in occurrence and non-occurrence
D - Infrequently occurs
E - Almost never occurs

Circle the correct response.

A B C D E 64. Personal dissatisfaction with the department is brought up.

A B C D E 65. The Department Head talks a great deal.

A B C D E 66. There are opportunities within the department for faculty members to get together in extra-curricular activities.

A B C D E 67. The Department Head discourages faculty members from pursuing their individual aims.

A B C D E 68. The Department Head regards what faculty members do outside of the group as of no concern to him.

A B C D E 69. The Department Head uses constructive criticism.

A B C D E 70. The Department Head is friendly and approachable.

A B C D E 71. The Department Head encourages the use of certain uniform procedures.

A B C D E 72. Close friendships are found among the department faculty.

A B C D E 73. Students respond to ideas and events in a pretty cool and detached way.

A B C D E 74. Faculty members pay little attention to rules and regulations.

A B C D E 75. Students call faculty members by their first names.

A B C D E 76. The Department Head works right along with the faculty.

A B C D E 77. A number of prominent faculty members play a significant role in campus-wide committees.

A B C D E 78. The Department Head stresses the importance of high morale in the group.

A B C D E 79. Faculty members recognize that there is a right and wrong way of going about department activities.

Key: A - Almost always occurs
B - Frequently occurs
C - Approximateldy equal in occurrence and non-occurrence
D - Infrequently occurs
E - Almost never occurs

Circle the correct response.

A B C D E 80. Students take little interest in departmental administration (until they are personally affected).

A B C D E 81. Everyone enjoys their associations with their colleagues in this department.

A B C D E 82. Faculty members express concern about the "deadwood" in this department.

A B C D E 83. Teaching schedules are easily changes.

A B C D E 84. The Department Head backs up the faculty members in their actions.

A B C D E 85. Most students are more concerned with the present than the future.

A B C D E 86. The Department Head puts the department's welfare above the welfare of any faculty member in it.

A B C D E 87. Faculty members are afraid to express extreme or unpopular viewpoints in this department.

A B C D E 88. The Department Head criticizes a faculty member in front of others.

A B C D E 89. Faculty members express the same kinds of attitudes, opinions and beliefs.

A B C D E 90. The department faculty gets things done.

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